SEC SK §229.1304 TECHNICAL REPORT ON THE SAN JOSÉ SILVER-GOLD MINE SANTA CRUZ, ARGENTINA

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MCEWEN MINING INC

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1 EXECUTIVE SUMMARY

1.1 Introduction

McEwen Mining Inc., the registrant, engaged the services of Mining Plus, P&E Mining Consultants Inc. and Keystone Resource Solutions Corp., supporting qualified firms staffed with professional geologists, mining engineers and marketing qualified persons, to prepare the individual Technical Report Summary at the Preliminary Feasibility Study ("PFS") level on their San José property using data gathered by the Qualified Persons ("QPs") to the new disclosure requirements for mining registrants promulgated by the United States Securities and Exchange Commission (SEC), in accordance with the requirements contained in the S-K §229.1300 to S-K §229.1305 regulations. The San José property is considered material to McEwen Mining. This report has an effective as-of date of December 25, 2020. The San José deposit is being mined through underground methods by the majority owner, Hochschild Mining. The registrant has a minority ownership position in the San José property and its on-going mining.

As part of Mining Plus preparation, a review of the Technical Report and data compiled under the Canadian NI 43-101 requirements based on the prepared data by P&E Mining Consultants Inc. ("P&E") headquartered in Brampton, ON Canada was completed. Mining Plus believes the reporting of mineral reserves and resources by P&E under the Canadian Regulator NI 43-101 guidelines is in many material respects highly aligned to the reporting required under S-K §229.1300 to S-K §229.1305; although several differences are noted, such as reporting Inferred Mineral Resources separate from the totaled Measured and Indicated Mineral Resources and are included under the NI 43-101 disclosure requirements.

Mineral reserves and other technical information contained herein are considered compliant with the reporting and disclosure requirements contained under S-K Subpart §229.1300 through S-K §229.1305 "Disclosure by Registrants Engaged in Mining Operations".

Forward-Looking Notice:

Sections of the report contain estimates, projections and conclusions that are forward-looking information within the meaning of applicable securities laws. Forward-looking statements are based upon the responsible QP's opinion at the time that they are made but, in most cases, involve significant risk and uncertainty. Although the responsible QP has attempted to identify factors that could cause actual events or results to differ materially from those described in this report, there may be other factors that cause events or results to not be as anticipated, estimated or projected. None of the QPs undertake any obligation to update any forward-looking information. There can be no assurance that forward-looking information in any section of the report will prove to be accurate in such statements or information.

Accordingly, readers should not place undue reliance on forward-looking information.

1.2 Property Description and Ownership

The San José Property is located in the Province of Santa Cruz, Argentina, lying approximately between latitudes 46°41'S and 46°47'S, and longitudes 70°17'W and 70°00'W. The mine is located 1,750 km by air south-southwest of Buenos Aires and 230 km southwest of the Atlantic port of Comodoro Rivadavia. The nearest town is Perito Moreno, located approximately 50 km west of the Property. Figure 1-1 shows the regional map containing the San José property.

Figure 1-1 – Regional Map Showing the San José Property, Argentina

The San José Property covers a total area of approximately 40,498.69 ha consisting of 50 contiguous mining concessions, all of which are in good standing. All necessary work permits for mine operations have been acquired and are in good standing.

The San José Mine is an operating underground mine exploiting epithermal Ag-Au and Au-Ag vein deposits. Title to the San José Property is held by Minera Santa Cruz S.A. ("MSC"), the holding and operating company set up under the terms of an option and joint venture agreement between Hochschild Mining (Argentina) Corporation ("HMC") (51%) and Minera Andes S.A. ("MASA") (49%). HMC is a wholly owned subsidiary of Hochschild Mining plc ("Hochschild" or "the Company"). MASA is an indirect wholly owned subsidiary of McEwen Mining Inc. Hochschild is the operator of the San José Mine. An aerial photograph of the San Jose Mine property and site are presented in Figure 1-2 and Figure 1-3.

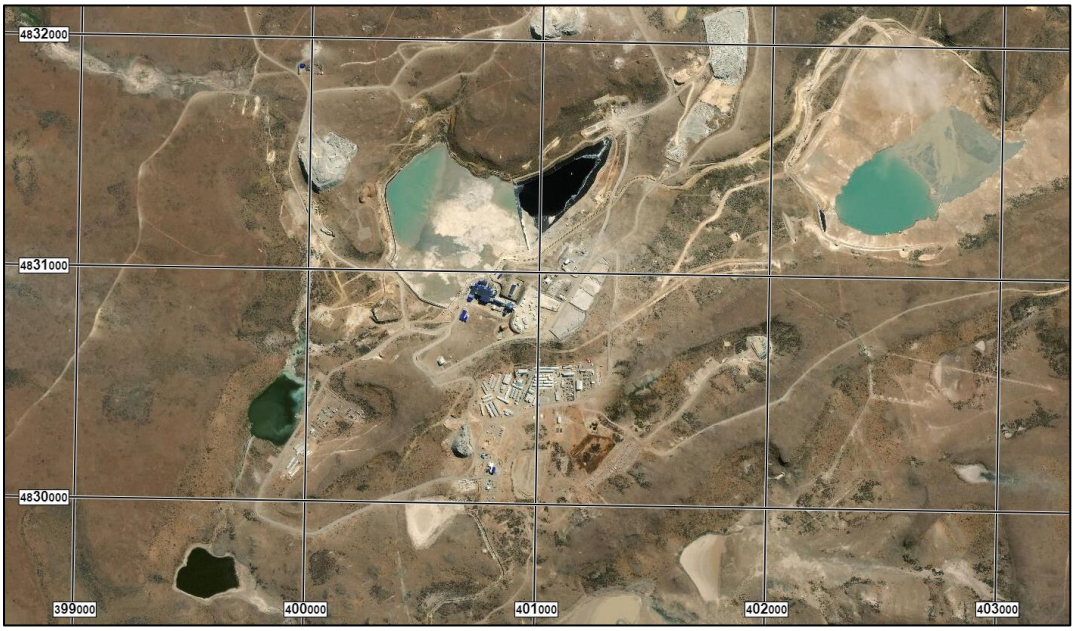

Figure 1-2 – Property Aerial View of San José Mine – Source: GIS Surfer

Figure 1-3 – San José Mine Site – Source: Google Maps, E. Azaguate

The principal access route to the San José Mine comprises a well-maintained, all weather, unsealed (gravel) road section 29 km long and then paved road to the port of Comodoro Rivadavia, a total distance of 350 km. Comodoro Rivadavia has scheduled national air services to Buenos Aires, the capital of Argentina, with international flight connections.

Transportation of materials to and from the Property is via highway using transport container and flat bed trucks. Concentrate is exported via the port of Puerto Deseado in the province of Santa Cruz, 250 km south of Comodoro Rivadavia.

The Property lies within an arid to semi-arid area of Argentina, with short warm summers with temperatures above 10°C and winters with temperatures commonly below 0°C.

The nearest town to the Property is Perito Moreno, approximately 50 km to the west. Las Heras and Pico Truncado are other small towns (populations ranging from approximately 3,600 to 15,000), which mostly provide labour for the oil industry to the northeast of San José, or, in the case of Perito Moreno, for tourism and agricultural purposes. These towns have grown during the last decade from supplying only the most basic needs (food, accommodations, fuel, hardware, labour, etc.) for projects in the early stages of exploration to centers that are more advanced in their abilities to supply services to operating and developing mines.

The topography of the Property in Argentina is gently rolling, with a few deeply incised valleys. Elevations on the Property vary between approximately 300 meters above sea level (masl) and 700 masl. The Property area is semi-desert.

1.3 Geology and Mineralization

The Property is located in the northwest corner of the 60,000 km2 Deseado Massif of the Santa Cruz Province, Argentina. Low sulphidation ("LS") epithermal silver-gold deposits accompanied magmatism and deformation.

The Jurassic rocks are divided into the Bajo Pobre Formation, predominantly of intermediate composition, and the felsic Bahia Laura Group. The Jurassic units are overlain by Cretaceous sedimentary rocks and Tertiary flood basalts. The principal host rock for silver and gold mineralization in the San José district is the Jurassic Bajo Pobre Formation where veins are typically developed in competent andesite flows at the Huevos Verdes, Frea and Kospi deposits on the San José Property, and to a lesser extent, in volcaniclastic units. Mineralization in the vicinity of the Property occurs as LS epithermal quartz veins, breccias and stockwork systems accompanying normal-sinistral faults striking 330° to 340° and conjugate dextral faults. Alteration is typically a LS epithermal with silicification accompanying all of the veins and fractures and occurring as a narrow alteration halo, generally surrounded by an extensive zone of intermediate argillic mixed with phyllic alteration. Strong argillic alteration is interpreted to be a supergene overprint of the propylitic halo with disseminated pyrite.

Regional exploration has identified numerous vein targets, of which five, Huevos Verdes, Frea, Kospi, Ayelén and Odin have been extensively explored by surface diamond drilling and subsequently developed and exploited by underground mining. The district surrounding San José is transected by two north-northeast striking major lineaments. The most important control on mineralization at San José is structure, which governs the formation and opening of faults and fractures, and the creation of open space conduits during the mineralizing events. The main structural trend of fault and vein systems on the Property is north-west to north-northwest. Less prominent are east-striking faults and veins and those north to northeast striking. A geological map covering the area of the San José Property is illustrated in Figure 1-4.

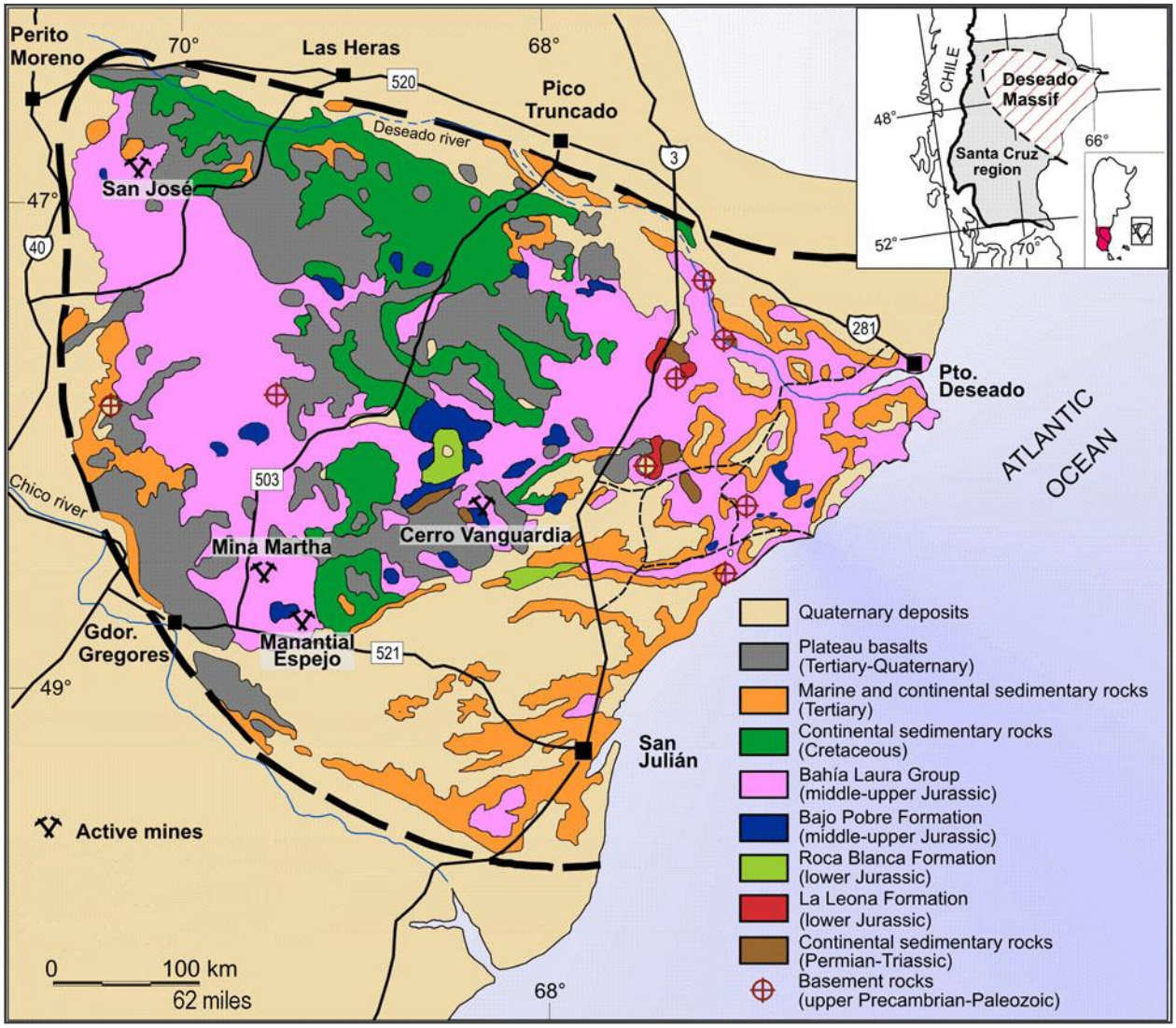

Figure 1-4 – Geology of the San José Property – Source: Hochschild (2019)

1.3.1 Deposit Types

The San José deposit is considered to be a typical LS silver-gold epithermal deposit. Many LS veins are well banded, and each band represents a separate episode of hydrothermal mineral deposition. The Deseado Massif in Argentina, a large bimodal igneous province, is host to numerous occurrences of silver-rich and polymetallic epithermal mineralization that includes the deposits of the San José mine.

1.4 Exploration Status

The exploration work conducted in 2018 and 2019 consisted of drilling. During 2018, Minera Santa Cruz (MSC) completed 15,700.7 m of exploration drilling in 54 holes, 19,596.2 m of infill drilling and mine development drilling in 111 drill holes, and 6,035.8 m of Mineral Resource drilling in 32 holes. For 2019, exploration drilling totalled 22,255.0 m in 73 holes and Mineral Resource definition drilling totalled 3,749.0 m in 12 holes. Development and infill drilling totalled 27,174.9 m in 183 holes.

In 2020 MSC completed 110 exploration holes totalling 24,874.5 m of drilling in 2020. Drilling was carried out on 31 different veins. Some exploration holes were conducted to test the extent of known veins.

1.5 Mineral Resource Estimates

The Mineral Resource Estimate was audited in terms of compliance with generally accepted industry standards and guidelines, the methodology used for estimation, the classification criteria used and the actual implementation of the methodology in terms of Mineral Resource estimation and reporting. The Mineral Resource Estimate was also checked by running parallel grade, volume, and tonnage comparisons from the mine operator, Hochschild-supplied, block models, as well as comparing the statistical distribution of input and output model data. Grade capping, variography, and grade estimation parameters were reviewed in detail and their appropriateness was determined. As a final check, composite grades, estimated block grades and Nearest Neighbour block grades, at zero AgEq cut-off, were compared.

The authors of this individual Technical Report Summary consider the Mineral Resource Estimate and Mineral Resource classification reported by the mine operator, Hochschild, represents a reasonable estimation of the Mineral Resources for the San José Property with regard to compliance with generally accepted industry standards and guidelines, the methodology used for estimation, the classification criteria used and the actual implementation of the methodology in terms of Mineral Resource estimation and reporting. The Mineral Resource reported by Hochschild has been estimated in conformity with the newly implemented Regulation of S-K §229.1304 as required by the United States Securities and Exchange

Commission ("SEC"). Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Mineral Resources at San José currently consist of 115 identified veins. Total S-K 1300 compliant Mineral Resources declared by Hochschild for San José, as of December 25, 2020, encompass Measured and Indicated Mineral Resources of 7.9 M oz AgEq and of 49.4 M oz AgEq (Table 1-1). Based on a silver price of US$20/oz and a gold price of US$1,800/oz, the cut-off grade used for Mineral Resource reporting is 285g/t AgEq. Of the internally diluted Mineral Resources, 30% are recovered and extractable, and a 43% external dilution was added to these Mineral Resources, at zero AgEq grade.

Table 1-1 – Mineral Resource Estimate as of December 25, 2020 [1-10]

Mineral Resources				
Date:	December 25, 2020	Based on:	Ag=$20/oz, Au=$1800/oz	
Classification	**Tonnes (k)**	**Grades Ag g/t Au g/t AgEq g/t**	**AgEq Cut-off grades**	**Metallurgical recovery**
Measured	209	355 / 5.07 / 791	285	90.0% Au, 89.9% Ag
Indicated	145	260 / 3.33 / 546	285	90.0% Au, 89.9% Ag
Meas & Ind	354	316 / 4.36 / 691	285	90.0% Au, 89.9% Ag
Inferred	1,861	345 / 5.58 / 825	285	90.0% Au, 89.9% Ag

1) Mineral Resources are 100% attributable to property. McEwen Mining has a 49% interest in San José.
2) Mineral Resources are exclusive of Mineral Reserves.
3) The Mineral Resource was estimated by Hochschild and audited by Fred Brown, P.Geo. associate of P&E Mining Consultants Inc., Qualified Person under S-K §229.1302 who assumes responsibility.
4) Mineral Resources do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
5) The Inferred Mineral Resource in this estimate has a lower level of confidence that applied to an Indicated Mineral Resource and is not converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
6) Numbers in the table might not add precisely due to rounding.
7) The Mineral Resource is depleted for previous mining activity.
8) The silver equivalent (AgEq)= (gold x 86) + silver.
9) The Mineral Resource is based on a silver price of US$20/oz and a gold price of US$1,800/oz, the cut-off grade used for Mineral Resource reporting is 285 g/t AgEq.
10) The Mineral Resources in this report were estimated and reporting using the regulation S-K §229.1304 of the United States Securities and Exchange Commission ("SEC").

1.6 Mineral Reserve Estimate

At San José, the Proven and Probable Mineral Reserves are based on an calculated Economic Cut-off Value ("ECOV") of $232.20/t and a Marginal Cut-off Value ("MCOV") of $115.00/t, using prices supported by marketing research, of US$1,800/oz for gold and US$20/oz for silver. The Mineral Reserves, detailed in Table 1-2, consider all blocks of ore located within or on the periphery of higher-grade zones that exceed the ECOV. The MCOV was defined by the value of ore that meets the variable costs, but not the fixed costs. The Mineral Reserve COV is based on historical October 2019 to September 2020 geologic, mining, plant and mine administration variable and fixed costs. The ECOV was estimated using both variable and

fixed costs and the MCOV was estimated using variable costs only. The Mineral Reserve Estimate is primarily based on the ECOV. Ore with a grade above the MCOV and less than the ECOV are included in the Mineral Reserve Estimate if it was necessary to develop through them in order to access ore grades above the ECOV. A total of 79% of Mineral Reserves are at or above the ECOV and 21% of Mineral Reserves are between the ECOV and the MCOV. The economic and marginal cut-off grades used to estimate San José's Mineral Reserves are 461 g/t AgEq and 228 g/t AgEq, respectively.

Table 1-2 – Mineral Reserve Estimate as of December 25 2020 [1-9]

Mineral Reserves				
Date: December 25, 2020		Based on: Ag=$20/oz, Au=$2000/oz		
Classification	**Tonnes (k)**	**Grades Ag g/t Au g/t AgEq g/t**	**AgEq Cut-off grades**	**Metallurgical recovery**
Proven mineral reserves	826	408 / 6.75 / 989	228	90.0% Au 89.9% Ag
Probable mineral reserves	187	354 / 5.46 / 823	228	90.0% Au 89.9% Ag
Total mineral reserves	1,013	398/ 6.51 /958	228	90.0% Au 89.9% Ag

1) Based on P&E's knowledge there are no environmental, permitting, legal, title, taxation, socio-economic political issues that would materially affect these Mineral Reserves.
2) P&E used a gold price of US$1,800/oz and a silver price of US$20/oz for estimating Mineral Reserves.
3) The cut-off value used to estimate Mineral Reserves is based on historical October 2019 to September 2020 geologic, mining, plant and mine administration variable and fixed costs.
4) Mineral Reserves are 100% attributable to property. McEwen Mining has a 49% interest in San José.
5) AgEq = (Au x 86) + Ag
6) AgEq Cut-off: 228 g/t
7) Totals have been rounded to the appropriate number of significant figures.
8) Mineral Reserves include internal dilution
9) The Mineral Resources in this report were estimated and reporting using the regulation S-K §229.1304 of the United States Securities and Exchange Commission ("SEC").

As of December 25, 2020, there was 11,000 t of ore stockpiled on surface at 336 g/t Ag and 8.00 g/t Au. The stockpiled ore is classified as Proven Mineral Reserve and is included in Table 1-2 above.

1.7 Material Development and Operations

The majority of production ore is derived from the "uphole retreat" mining technique where a mining block approximately 50m in length is drilled with upholes and retreated along strike. San Jose utilizes mechanized Cut and Fill mining using scoop trams, and jacklegs (pneumatic rock drills) or single-boom jumbos.

The mining equipment consists of development and production drills, scoop trams, haul trucks, service vehicles and personnel transport vehicles. Scooptrams range in size from 0.75 yd^3 to 6.0 yd^3. A fleet of 20t trucks is used to haul the ore to the surface.

Development waste rock is usually hauled to a surface stockpile and then rehandled through waste passes when it is required underground as backfill. Supplementary backfill is available from a surface waste dump.

Operations have been affected by the Covid-19 pandemic. The San José Mine operations were suspended on March 20, 2020 and mining partially resumed in mid-April. Ore processing was re-established on April 27, 2020. Due to sanitary restrictions, it was not possible to re-mobilize the entire workforce, and it is estimated that the production level will remain at 70% to 75% of full capacity until at least December 2020. The 2021 planned mining capacity is projected at 91%. The Mine continues to closely monitor the situation.

1.8 Mine Design

The San José Mine is a ramp access underground mining operation accessed from three main portals. There is a total of 42 veins that have been or will be mined at San José. The average mining width across all of the vein systems is approximately 2 m. The dip of the veins varies from 55° to 70°. Mechanized cut and fill mining is the main method utilized at San José. The majority of production ore is derived from the "uphole retreat" mining technique where a panel of approximately 50 m in length is drilled with upholes and retreated along strike. Horizontal "breasting" is only used on the initial lift in each stope. A "resue" mining technique is employed in narrow high-grade areas. Longhole mining methods are also utilized to a lower extent. Waste rock backfill is used in the stopes. Hochschild undertakes both production and development mining.

The mining equipment consists of development and production drills, scoop trams ("LHDs"), haul trucks, service vehicles and personnel transport vehicles. Scooptrams vary in size from 0.75 yd3 to 6.0 yd3. A fleet of 30 t highway type trucks is used to haul the ore to the surface. Approximately 748 personnel are assigned to underground mining operations. The San José Mine is estimated to deliver 901,700 t of ore, at 7.00 g/t Au and 427 g/t Ag, to the process plant from June 25, 2020 to June 2022 (LOM), from both development and production.

1.9 Infrastructure, Capital, and Operating Cost Estimates

All of the infrastructure required are in place to produce the Mine's projected production including roads, electric power, fuel storage, communication services, underground mine infrastructure, process plant and tailings storage facilities.

All capital cost estimates, information and data were supplied by the mine operator, Hochschild, to the registrant and further provided to both P&E Mining Consultants Inc. and Mining Plus by both entities and others. San José's capital cost items include mine development required to access Mineral Reserves, projects, sustaining capital, support and infrastructure, and mine closure. San José's total estimated LOM capital costs are summarized in Table 1-3.

All forecasted operating cost estimates, information and data were supplied by Hochschild to the registrant and provided to Mining Plus by the registrant. A summary is presented in Table 1-4.

On an annual basis, the unit costs relate to $120.8 M in 2021 and $119.6 M in 2022.

Table 1-3 – Forecasted Capital Cost Summary

CAPITAL COST SUMMARY IN US$000S														
Description	Year													LOM
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Capital Development	10,299	2,487	-	-	-	-	-	-	-	-	-	-	-	12,785
Sustaining Capital	12,647	13,328	-	-	-	-	-	-	-	-	-	-	-	25,974
Support and Infrastructure	3,533	3,724	-	-	-	-	-	-	-	-	-	-	-	7,257
Closure		20,000	-6,990	10,647	7,279	77	77	77	106	106	106	106	106	31,699
Total Capex	**26,479**	**39,538**	**-6,990**	**10,647**	**7,279**	**77**	**77**	**77**	**106**	**106**	**106**	**106**	**106**	**77,716**

Table 1-4 – Forecasted Operating Cost Summary

LOM OPERATING COST SUMMARY US$/t PROCESSED				
Category	2021	2022	2023	LOM
Geology	9.90	9.10	-	9.49
Mine	78.71	72.92	-	75.74
Royalties	15.99	17.49	-	16.76
Process Plant	41.39	39.82	-	40.58
General Services	47.93	44.17	-	46.00
Admin	50.98	46.52	-	48.69
Total	**244.89**	**230.02**	**-**	**237.26**

1.10 Market Studies

The registrant does not have any forward sales or streaming gold or silver contracts in place that are applicable to the San José Mine, and future gold and silver revenue will be according to spot prices on open markets.

Hochschild subsidiary Minera Santa Cruz S.A. has a contract with Argor-Heraeus of Switzerland to smelt and refine its gold and silver doré bars. The contract was established in 2015 and has had six amendments up to 2020. Payable metal is set at 99.9% for both gold and silver. The contract also specifies refining charges.

Hochschild subsidiary Minera Santa Cruz S.A. has also established contracts with various companies based in Bulgaria, Germany, Peru, and South Korea to smelt and refine its silver concentrate which also contains gold. The most recent contracts were established in 2017 to 2020.

1.11 Environmental, Social and Permitting

The overall San José mine facility was certified under the ISO 14001 environmental standard in May 2011. A follow-up audit was completed in March 2012 and the entire facility was recertified in 2013. There were 3 environmental audits in 2013 – internal, external, and intra-company.

Environmental Impact Reports "EIA" (Informe Impacto Ambiental – IIA) must be submitted to the provincial government prior to conducting mining operations. On March 1, 2006, Minera Santa Cruz (MSC) received approval for the Environment Impact Assessment (Informe Impacto Ambiental) for the Property.

All of the known mineralized zones, mineral resources and mineral reserves and active mine workings, existing tailings ponds, waste, etc., are within MSC's concessions.

Grants of mining rights, including water rights, are subject to the rights of prior users. The mining code also contains environmental and safety provisions administered by the provinces.

San José has comprehensive environmental management and social programs in place. Reports available to P&E indicate a high degree of compliance with environmental objectives and regulations. There are significant on-going programs to support local communities, in particular, the interests of the citizens of Perito Moreno.

Other permits applied and / or accepted in order to advance the Property are outlined in **Error! Reference source not found.** of Section 3.3 Environmental Liabilities and Other Permitting Requirements.

1.12 Economic Analysis

A cash flow summary is presented in

Table 1-5. All costs are in 2021 US$(000s) with no allowance for inflation. The following information

cription	Units	Year												
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
n	tonnes	493,350	519,923	-	-	-	-	-	-	-	-	-	-	-
	g/t	6	7	-	-	-	-	-	-	-	-	-	-	-
	g/t	364	430	-	-	-	-	-	-	-	-	-	-	-
gEq	(000s)	12,569	14,582	-	-	-	-	-	-	-	-	-	-	-
nue	$000s	290,401	330,920	-	-	-	-	-	-	-	-	-	-	-
n Cost	$000s	-120,818	-119,591	-	-	-	-	-	-	-	-	-	-	-
	$000s	-15,551	-17,586	-	-	-	-	-	-	-	-	-	-	-
ation	$000s	-6,345	-6,345	-	-	-	-	-	-	-	-	-	-	-
ility Tax	$000s	-2,904	-3,309	-	-	-	-	-	-	-	-	-	-	-
	$000s	-26,479	-19,538	-	-	-	-	-	-	-	-	-	-	-
sure	$000s	-	-20,000	6,990	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106
ash Flow	$000s	118,304	144,550	6,990	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106
ax	$000s	-34,611	-35,123	-2,600	-	-	-	-	-	-	-	-	-	-
Cash Flow	$000s	83,693	109,427	4,390	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106
r-Tax @ 5%	$000s	167,815												

represents 100% of the Property. The Registrant has a 49% attributable interest in the San José Mine.

Using average JP Morgan consensus forecasted metal prices of US$1,892.45/oz Au and US$26.45/oz Ag, a Net Present Value ("NPV") analysis, at a 5% discount rate, was completed on the after-tax cash flow and is estimated at US$167.8 M. The undiscounted after-tax cash flow is estimated at US$178.8 M. For this cash flow analysis, IRR is non-applicable since there is no initial negative cash flow.

The Operating Cost is US$10.77/oz AgEq. The LOM capital cost, including closure cost, is estimated at US$2.86/oz AgEq. Average annual production during the operation is approximately 13.8 M oz AgEq per year from 2021 to 2022.

After-tax sensitivity of NPV has been calculated for -20% to +20% variations. Sensitivity values are shown in Table 1-6. Note that the sensitivity values of gold metallurgical recoveries at 80%, 110% and 120% are unreasonable and/or unattainable and are not applicable.

The after-tax base case NPV is most sensitive to gold price then by gold metallurgical recovery and gold head grade followed by OPEX, silver price, then CAPEX.

Table 1-5 – Forecasted Cash Flow Summary

Description	Units	Year													LOM
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Production	tonnes	493,350	519,923	-	-	-	-	-	-	-	-	-	-	-	1,013,273
Au	g/t	6	7	-	-	-	-	-	-	-	-	-	-	-	6.51
Ag	g/t	364	430	-	-	-	-	-	-	-	-	-	-	-	398
Ounces AgEq	(000s)	12,569	14,582	-	-	-	-	-	-	-	-	-	-	-	27,150
Net Revenue	$000s	290,401	330,920	-	-	-	-	-	-	-	-	-	-	-	621,321
Production Cost	$000s	-120,818	-119,591	-	-	-	-	-	-	-	-	-	-	-	-240,409
Selling	$000s	-15,551	-17,586	-	-	-	-	-	-	-	-	-	-	-	-33,137
Administration	$000s	-6,345	-6,345	-	-	-	-	-	-	-	-	-	-	-	-12,691
Responsibility Tax	$000s	-2,904	-3,309	-	-	-	-	-	-	-	-	-	-	-	-6,213
Capex	$000s	-26,479	-19,538	-	-	-	-	-	-	-	-	-	-	-	-46,017
Mine Closure	$000s	-	-20,000	6,990	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106	-31,699
Pre-Tax Cash Flow	$000s	118,304	144,550	6,990	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106	251,155
Income Tax	$000s	-34,611	-35,123	-2,600	-	-	-	-	-	-	-	-	-	-	-72,334
After-Tax Cash Flow	$000s	83,693	109,427	4,390	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106	178,821
NPV After-Tax @ 5%	$000s	167,815													

Table 1-6 – Sensitivities on After-Tax NPV's at a 5% Discount Rate

Item	Units	80%	90%	Base Case	110%	120%
Au Metal Price	US$M	125.3	146.6	167.8	189.1	210.3
Ag Metal Price	US$M	131.9	149.9	167.8	185.8	203.7
Au Head Grade	US$M	125.4	146.6	167.8	189.0	210.2
Au Met Recovery	US$M	125.4	146.6	167.8	189.0	210.2
CAPEX	US$M	180.5	174.2	167.8	161.5	155.1
OPEX	US$M	207.0	187.4	167.8	148.2	128.7

1.13 Conclusions

The San José Mine has been in operation since 2007 and currently is scheduled to close in 2023, however, there is a history of continuing operations when resources are converted to reserves, as required. It is currently a 1,650 tpd operation that mines ore containing silver and gold that is processed on site. The processing of flotation concentrate tonnage is split between leaching with on-site doré metal production, and filtering, bagging, and the shipment of moist concentrate to a smelter/refinery for processing. Metal is sold on the open market.

The Mine and mine infrastructure design, construction and operation were implemented and have been maintained at a relative high standard compared to industry best practices.

The sample preparation and analysis are carried out in accordance with best exploration and industry practices and the QA/QC procedures are judged to be adequate. The database is appropriate for use in Mineral Resource and Mineral Reserve Estimates.

Metal prices used for both Mineral Resources and Mineral Reserves are US$20/oz Ag and US$1,800/oz Au.

As of December 25, 2020, the Mineral Resource Estimate is comprised of Measured and Indicated Mineral Resources of 354 kt at 316 g/t Ag and 4.36 g/t Au and Inferred Mineral Resources of 1,861 kt at 345 g/t Ag and 5.58 g/t Au. The cut-off grade used for reporting is 285 g/t AgEq.

As of December 25, 2020 the Mineral Reserve Estimate is comprised of Proven Mineral Reserves of 826 kt at 408 g/t Ag and 6.75 g/t Au, and Probable Mineral Reserves of 187 kt at 354 g/t Ag and 5.46g/t Au for a total Mineral Reserve of 1,013 kt at 398 g/t Ag and 6.51 g/t Au.

San José is a ramp access, underground mining operation with three main portals. There is a total of 42 veins that have been or will be mined at San José. The average mining width across all of the vein systems is approximately 2 m. The dip of the veins varies from 55° to 70°. Mechanized cut and fill mining is the main method at San José. The majority of production ore is derived from the “uphole retreat” mining technique where a panel of approximately 50 m in length is drilled with upholes and retreated along strike. Horizontal “breasting” is only used on the initial lift in each stope. A “resue” mining technique is employed in narrow high-grade areas. Longhole mining methods are also utilized. Waste rock backfill is used in the stopes. As operator, Hochschild undertakes both production and development mining.

The process plant consists of conventional crushing, grinding, and production by flotation of a silver-gold-sulphide concentrate, and a laboratory. The processing of flotation concentrate is split between leaching with on-site doré metal production, and filtering, bagging, and the shipment of moist concentrate to a smelter/refinery for processing. In 2019, the overall gold and silver recoveries were 90.0% and 89.9%, respectively. 2020 production amounted to 15,390 koz AgEq. Flotation tailings are pumped to a tailings dewatering facility adjacent to the number 3 tailings storage facility 1.6 km from the process plant.

Leached tailings are disposed in the number 2 tailings storage facility, which is a fenced and double-lined facility.

Forecasted capital costs over the 2021-2022 production period, with final closure in 2033, are estimated at US$77.7 M and include severance costs, salvage value, and closure costs. LOM operating costs are estimated at US$237.26/t processed for a total of US$240.4 M. LOM net revenue is estimated at US$621.3 M.

Average JP Morgan consensus forecasted metal prices of US$1,892.45/oz Au and US$26.45/oz Ag were forecasted as average pricing over the next 2 years. The Qualified Person agrees with this analysis. A Net Present Value ("NPV") analysis using a 5% discount rate was completed on after-tax cash flow and is estimated at US$167.8 M. The undiscounted after-tax cash flow is estimated at US$178.8 M. For this cash flow analysis, IRR is not applicable since there is no initial negative cash flow. The after-tax base case NPV is most sensitive to gold price then by gold metallurgical recovery and gold head grade followed by OPEX, silver price, then CAPEX.

It should be noted that the San José Mine has a history of increasing Mineral Reserves over time, both from upgrading Inferred Mineral Resources to Indicated Mineral Resources, and from exploration success.

1.14 QP Recommendations

The registrant's information includes recommendations from the various QP's working on this report. The main recommendation is to drill and explore the Property to increase the Mineral Resource and Mineral Reserve. Mine and process plant operations are well run and maintained and are profitable at current market metal prices.

Specific recommendations regarding the Mineral Resource Estimate are:

- The authors of the Technical Report Summary noted a total of 403 zero-grade assays and recommend that data entries with a zero grade be re-examined;
- Re-examine how smaller residual composite samples are used during estimation;
- The use of a small number of samples combined with inconsistent compositing intervals may produce a local estimation bias; and
- The grade estimation criteria should be reviewed for a total Mineral Resource where there is more than a 5% change between the average estimated grade and the average Nearest Neighbour grade.

1.15 Revision Notes

This individual Technical Report Summary is the initial report to be issued under the S-K §229.1300 regulations, so no revision note is attached to this individual TRS.

2 INTRODUCTION

2.1 Terms of Reference and Purpose of the Report

This report was prepared for McEwen Mining, the registrant, by Mining Plus and other qualified persons to provide an S-K §229.1304 compliant Individual Technical Report Summary of reserves and resources for the gold and silver mineralization contained in the San José Property, Argentina ("the Property" or "Mine"). The San José Mine is an operating underground mine exploiting epithermal Ag-Au and Au-Ag vein deposits. Title to the Property is held by Minera Santa Cruz, S.A. ("MSC"), the holding and operating company set up under the terms of an option and joint venture agreement between certain subsidiaries of Hochschild Mining plc ("Hochschild" or "the Company") (51%) and McEwen Mining Inc. ("McEwen") (49%). Hochschild is the operator.

Mining Plus has completed this Individual Technical Report Summary at the direction of Mr. Luke Willis, Project Manager, McEwen Mining, a mid-sized precious metals mining company headquartered in Toronto, Canada and listed on the NYSE and TSX under the symbol, "MUX". McEwen has a 49% interest in the San José mining operation.

The contact details for the registrant, McEwen Mining, are:

150 King Street West Suite 2800
Toronto, ON M5H 1J9
Canada

tel: 647-258-0395
toll-free: 1-866-441-0690
fax: 647-258-0408

This Individual Technical Report Summary has an effective date of December 25, 2020.

A site visit was not conducted by Mining Plus due to the COVID-19 pandemic conditions. Travel to site from various starting points were investigated and all options were pursued to conduct the required site visit(s). As an alternative, mine staff whose background and experience meet the requirements of a "Qualified Person" participated in a "video site visit" with qualified staff from Mining Plus. The conducting of necessary data gathering, staff interviews, process auditing, and operational inspections to relay such information via several video meetings to Ing. Raul Espinoza was performed during March, 2021. This is in addition to site visits carried out by P&E Qualified Persons Mr. D. Gregory Robinson, P.Eng., and Mr. D. Grant Feasby, P.Eng., on January 16th and 17th, 2020 to review the mining and process plant operations.

In addition to the site visits, the registrant has provided additional information to Mining Plus from discussions P&E held with technical personnel from the Hochschild regarding all pertinent aspects of the

Property and carried out a review of available literature and documented results concerning the Property. The reader is referred to those data sources, which are outlined in the References section of this Technical Report Summary, for further detail.

The purpose of the current Individual Technical Report Summary is to provide an independent, S-K §229.1304 compliant Technical Report Summary on the San José Property. Mining Plus understands that this Technical Report Summary will be used for internal decision-making purposes and will be included on EDGAR in support of McEwen filings as required under SEC regulations. The Technical Report Summary may also be used to support public financings.

2.2 Qualifications of Qualified Persons/Firms

Mining Plus, P&E Mining Consultants Inc., and Keystone Resource Solutions Corp - firms comprised of marketing and mining experts, including professional marketing consultants, geologists, mining engineers, and metallurgists, have worked together to meet the requirements. Annual site visits have been conducted by P&E on behalf of Hochschild for the San José Property and provided by the registrant to Mining Plus. The last Property visit where verification samples were collected was by Mr. Eugene Puritch, P. Eng., on January 10, 2017. A tour of the drill sites was undertaken and drill core handling, drill core logging and sample protocols were observed. Coordinates for select drill hole collars were determined by GPS.

2.2.1 Contributing Authors

EUGENE J. PURITCH, P.ENG.

I, Eugene Puritch, P. Eng., residing at 44 Turtlecreek Blvd., Brampton, Ontario, Canada, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition, I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for a bachelor's degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.
   I have read the definition of "Qualified Person" set out in S-K 1300 regulations §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
   I have practiced my profession continuously since 1978. My summarized career experience is as follows:
   - Mining Technologist - H.B.M.& S. and Inco Ltd., 1978-1980
   - Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
   - Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
   - Self-Employed Mining Consultant – Timmins Area, 1987-1988
   - Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
   - Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
   - President – P&E Mining Consultants Inc, 2004-Present
4. I have visited the Property that is the subject of this Technical Report Summary annually from 2009 to 2018 (Jan 9 & 10) and took verification samples from 2009 to 2017.
5. I am responsible for co-authoring chapters 1, 9, 11, 13, 22 and 23 of this Technical Report Summary.
6. I am independent of the Issuer applying the test in S-K §229.1302.
7. I have had prior involvement with the Project that is the subject of this Technical Report Summary. I was a "Qualified Person" for a Technical Report Summary titled "Audit Report on the Mineral Resources and Mineral Reserves of Hochschild's Producing Mines in Peru and Argentina" as of December 31, 2019 and with a report date of August 6, 2020.
8. I have read S-K §229.1302. This Technical Report Summary has been prepared in compliance therewith with §229.601(b)(96).
9. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021
{SIGNED AND SEALED}
[Eugene Puritch]

_____

Eugene J. Puritch, P.Eng.

JAMES PEARSON, P. ENG.

I, James Pearson, P.Eng., residing at 105 Stornwood Court, Brampton, Ontario, Canada, L6W 4H6, do hereby certify that:

1. I am a Mining Engineering Consultant, contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of Queen's University, Kingston, Ontario, Canada, in 1973 with a Bachelor of Science degree in Mining Engineering. I am registered as a Professional Engineer in the Province of Ontario (Reg. No. 36043016). I have worked as a mining engineer for a total of 47 years since my graduation.
   I have read the definition of "Qualified Person" set out in Section S-K §229.1302 and certify that by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of Section §229.1302. My relevant experience for the purpose of the Technical Report Summary has been acquired by the following activities:
   - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements;
   - Project Manager and Superintendent of Engineering and Projects at several underground operations in South America;
   - Senior Mining Engineer with a large Canadian mining company responsible for development of engineering concepts, mine design and maintenance;
   - Mining analyst at several Canadian brokerage firms.
4. I have visited the Property that is the subject of this Technical Report Summary numerous times but have not visited the Property since 2011.
5. I am responsible for authoring chapters 12, 15, 18 and 19 and co-authoring chapters 1, 13, 22 and 23 of this Technical Report Summary.
6. I am independent of the Issuer applying the test in Section §229.1302.
7. I have had prior involvement with the Project that is the subject of this Technical Report Summary. I was a "Qualified Person" for a Technical Report Summary titled "Audit Report on the Mineral Resources and Mineral Reserves of Hochschild's Producing Mines in Peru and Argentina" as of December 31, 2019 and with a report date of August 6, 2020.
8. I have read Section §229.1302 and this Technical Report Summary has been prepared in compliance therewith.
9. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021
{SIGNED AND SEALED}
[James Pearson]

_____

James Pearson, P.Eng.

D. GRANT FEASBY, P. ENG.

I, D. Grant Feasby, P. Eng., residing at 12,209 Hwy 38, Tichborne, Ontario, Canada, K0H 2V0, do hereby certify that:

1. I am currently the Owner and President of:
   Feasby Environmental Advantage Services
   38 Gwynne Ave, Ottawa, K1Y1W9
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I graduated from Queens University in Kingston Ontario, in 1964 with a Bachelor of Applied Science in Metallurgical Engineering, and a Master of Applied Science in Metallurgical Engineering in 1966. I am a Professional Engineer registered with Professional Engineers Ontario. I have worked as a metallurgical engineer for over 50 years since my graduation from university.
   I have read the definition of "Qualified Person" set out in S-K §229.1302 and certify that by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
   My relevant experience for the purpose of the Technical Report Summary has been acquired by the following activities:
   Metallurgist, Base Metal Processing Plant.
   - Research Engineer and Lab Manager, Industrial Minerals Laboratories in USA, and Canada.
   - Research Engineer, Metallurgist and Plant Manager in the Canadian Uranium Industry.
   - Manager of Canadian National Programs on Uranium and Acid Generating Mine Tailings.
   - Director, Environment, Canadian Mineral Research Laboratory.
   - Senior Technical Manager, for large gold and bauxite mining operations in South America.
   - Expert Independent Consultant associated with several companies, including P&E Mining Consultants, on mineral processing, environmental management, and mineral-based radiation assessment.
4. I have visited the San José Mine Property that is the subject of this Technical Report Summary annually since 2010 with the most recent visit on January 16th and 17th, 2020.
5. I am responsible for authoring chapters 10, 14 and 17 and co-authoring chapters 1, 22 and 23 of this Technical Report Summary.
6. I am independent of the issuer applying the test in Section S-K §229.1302.
7. I have had prior involvement with the Project that is the subject of this Technical Report Summary. I was a "Qualified Person" for a Technical Report Summary titled "Audit Report on the Mineral Resources and Mineral Reserves of Hochschild's Producing Mines in Peru and Argentina" as of December 31, 2019 and with a report date of August 6, 2020.
8. I have read S-K §229.1302 and the Technical Report Summary has been prepared in compliance therewith.
9. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[D. Grant Feasby]

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D. Grant Feasby, P.Eng.

FRED BROWN, P.GEO.

I, Fred Brown, of PO Box 332, Lynden, WA, USA, do hereby certify that:

1. I am an independent geological consultant and have worked as a geologist continuously since my graduation from university in 1987.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I graduated with a Bachelor of Science degree in Geology from New Mexico State University in 1987. I obtained a Graduate Diploma in Engineering (Mining) in 1997 from the University of the Witwatersrand and a Master of Science in Engineering (Civil) from the University of the Witwatersrand in 2005. I am registered with the South African Council for Natural Scientific Professions as a Professional Geological Scientist (registration number 400008/04), the Association of Professional Engineers and Geoscientists of British Columbia as a Professional Geoscientist (171602) and the Society for Mining, Metallurgy and Exploration as a Registered Member (#4152172).
   I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1032.
   My relevant experience for the purpose of the Technical Report Summary is:
   - Underground Mine Geologist, Freegold Mine, AAC 1987-1995
   - Mineral Resource Manager, Vaal Reefs Mine, Anglogold 1995-1997
   - Resident Geologist, Venetia Mine, De Beers 1997-2000
   - Chief Geologist, De Beers Consolidated Mines 2000-2004
   - Consulting Geologist 2004-2008
   - P&E Mining Consultants Inc. – Sr. Associate Geologist 2008-Present
4. I have not visited the Property that is the subject of this Technical Report Summary.
5. I am responsible for co-authoring chapters 1, 11, 22 and 23 of this Technical Report Summary.
6. I am independent of the Issuer applying the test in Section §229.1302.
7. I have had prior involvement with the Project that is the subject of this Technical Report Summary. I was a "Qualified Person" for a Technical Report Summary titled "Audit Report on the Mineral Resources and Mineral Reserves of Hochschild's Producing Mines in Peru and Argentina" as of December 31, 2019 and with a report date of August 6, 2020.
8. I have read S-K Section §229.1302 and this Technical Report Summary has been prepared in compliance therewith.
9. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[Fred Brown]

_____

Fred Brown, P.Geo.

DAVID BURGA, P.GEO.

I, David Burga, P. Geo., residing at 3884 Freeman Terrace, Mississauga, Ontario, Canada, L5M 6P6 do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of the University of Toronto with a Bachelor of Science degree in Geological Sciences (1997). I have worked as a geologist for over 20 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Association of Professional Geoscientists of Ontario (License No 1836).
   I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
   My relevant experience for the purpose of the Technical Report Summary is:
   - Exploration Geologist, Cameco Gold 1997-1998
   - Field Geophysicist, Quantec Geoscience 1998-1999
   - Geological Consultant, Andeburg Consulting Ltd. 1999-2003
   - Geologist, Aeon Egmond Ltd. 2003-2005
   - Project Manager, Jacques Whitford 2005-2008
   - Exploration Manager – Chile, Red Metal Resources 2008-2009
   - Consulting Geologist 2009-Present
4. I have visited the Property that is the subject of this Technical Report Summary on May 10, 2010.
5. I am responsible for authoring chapters 3, 4, 5, 6, 7, 8, and 20, and co-authoring chapters 1, 11, 22 and 23 of this Technical Report Summary.
6. I am independent of the Issuer applying the test in Section §229.1302.
7. I have had prior involvement with the Project that is the subject of this Technical Report Summary. I was a "Qualified Person" for a Technical Report Summary titled "Audit Report on the Mineral Resources and Mineral Reserves of Hochschild's Producing Mines in Peru and Argentina" as of December 31, 2019 and with a report date of August 6, 2020.
8. I have read S-K Section §229.1302 and this Technical Report Summary has been prepared in compliance therewith.
9. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[David Burga]

_____

David Burga, P.Geo.

D. GREGORY ROBINSON, P. ENG.

I, David Gregory (Greg) Robinson, P. Eng., residing at 1236 Sandy Bay Road, Minden, Ontario, Canada, K0M 2K0, do hereby certify that:

1. I am an independent engineering consultant working for P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of Dalhousie University, Queens University and Cornell University, and Professional Engineer of Ontario (License No. 100216726).
   I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
   I have practiced my profession continuously since 2008. My summarized career experience is as follows:
   - Associate Engineer, P&E Mining Consultants — Aug 2017 - Present
   - Mine Engineer, Lac des Iles Mine, North American Palladium — May 2016 – Jun 2017
   - Senior Underground Engineer, Phoenix Gold, Rubicon Minerals — Sep 14 – Jan 2016
   - Mine Engineer, Diavik Diamond Mine, Rio Tinto Diamonds — Sep 2011 – Sep 2014
   - Mine Engineer, Bengalla Mine, Rio Tinto Coal and Allied — Dec 2008 – Sep 2011
   - EIT, Creighton Mine, Vale-Inco — May2008 – Dec 2008
4. I have visited the Property that is the subject of this Technical Report Summary annually from 2018, most recently on January 16th and 17th, 2020.
5. I am responsible for co-authoring chapters 1, 13, 22 and 23 of this Technical Report Summary.
6. I am independent of the Issuer applying the test in Section §229.1302. I am independent of the Vendor and the Property.
7. I have had prior involvement with the Project that is the subject of this Technical Report Summary. I was a "Qualified Person" for a Technical Report Summary titled "Audit Report on the Mineral Resources and Mineral Reserves of Hochschild's Producing Mines in Peru and Argentina" as of December 31, 2019 and with a report date of August 6, 2020.
8. I have read S-K Section §229.1302. This Technical Report Summary has been prepared in compliance therewith.
9. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[D. Gregory Robinson]

_____

D. Gregory Robinson, P.Eng.

SCOTT G. BRITTON, P. E.

I, Scott G. Britton, P. E., residing at 18930 Augusta Drive, Monument, CO 80132, do hereby certify that:

1. I am an independent engineering consultant working for Mining Plus Consultants Inc.
2. This certificate applies to the Individual Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of Virginia Polytechnic Institute and State University, Blacksburg, VA, with a B.S. degree in Mining Engineering and am a Professional Engineer registered in Wyoming (License No. PE-032064).
4. I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
5. I am a registered member (Reg # 00370510) of the Society for Mining, Metallurgy & Exploration (SME), a professional mining organization, headquartered in Denver, CO USA and whose membership is publically available for review.
6. I have practiced my profession continuously since 1977. My summarized career experience is as follows:
    - Principal Mining Consultant, Mining Plus Consultants, Denver, CO — Feb 2020 - Present
    - Country Manager, Illuka Resources, Stony Creek, VA — Oct 2018 – Aug 2019
    - General Manager, Rambler Metals and Mining, Baie Verte, Newfoundland — Sep 2017 – Sep 2018
    - General Manager, Rabbit Lake Mine & Mill, Cameco Resources, Saskatoon, SK — Sep 2012 – Jun 2017
    - Mine Operations Manager, Boleo Copper Project, Baja Mining Corp., Vancouver, BC — May 2006 – Sep 2012
    - Mine Manager, General Chemical (Soda Ash) Partners, Green River, WY — May 1994 – Dec 2005
    - Technical Services Manager, General Chemical (Soda Ash) Partners, Green River, WY — May 1992 – Dec 1994
    - Chief Operating Officer, Tanoma Mining Company, Indiana, PA — Jun 1988 – May 1992
    - Technical Engineering Manager, Tanoma Coal Company, Indiana, PA — May 1984 – Jun 1988
    - Staff Mining Engineer, SAI Applications, Valley Forge, PA — May 1979– May 1984
    - Staff Mining Engineer, Pittston Coal Group, Clinchfield Coal Co., Dante, VA — May 1977 – Nov 1979
7. I have not visited the Property that is the subject of this Technical Report Summary.
8. I am responsible for peer review of all chapters of this individual Technical Report Summary.
9. I am independent of the registrant applying the test in Section §229.1302. I am independent of the Vendor and the Property.
10. I have not had prior involvement with the Project that is the subject of this Individual Technical Report Summary
11. I have read S-K Section §229.1302. This Technical Report Summary has been prepared in compliance therewith.
12. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[Scott G. Britton]

_____
Scott G. Britton, P.E.

LUIS J. PELOQUIN, P. Eng.

I, Luis J. Peloquin, P. Eng., residing at 28 Weldrick Rd. West, Richmond Hill, ON L4C3T8, do hereby certify that:

1. I am an independent engineering consultant working for Mining Plus Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of Laurentian University, Sudbury, ON, with a B.Eng. degree in Mining Engineering and am a Professional Engineer of Ontario (License No. 100144417).
4. I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
5.
6. I have practiced my profession continuously since 2006. My summarized career experience is as follows:
    - Senior Mining Consultant, Mining Plus Consultants, Toronto, ON — Jan 2019 - Present
    - Senior Mining Engineer, Barrick Gold Corp., Marathon, ON — Jul 2018 – Dec 2018
    - Senior Drill & Blast Engineer, Rio Tinto, Oyu Tolgoy, Mongolia — Sep 2016 – Jul 2018
    - Senior Mining Engineer, Short Term Contracts, Confidential Firms, Mexico — Jun 2014 – Sep 2016
    - Senior Mining Consultant, SRK Canada Consulting, Sudbury, ON — Sep 2012 – May 2014
    - Senior Mining Engineer, Kinross Gold Corp., Fruta del Norte, Ecuador — Jun 2011 – Sep 2012
    - Senior Ventilation Engineer, Vale INCO, Sudbury, ON — Jul 2008 – May 2011
    - Mine Planner, Goldcorp Inc., Musselwhite, ON — May 2006 – May 2008
7. I have not visited the Property that is the subject of this Technical Report Summary.
8. I am responsible as co-author for information contained in chapters 1,2, 4, 7, 10, 11, 15 and 19 of this individual Technical Report Summary.
9. I am independent of the registrant applying the test in Section §229.1302. I am independent of the Vendor and the Property.
10. I have not had prior involvement with the Project that is the subject of this Technical Report Summary
11. I have read S-K Section §229.1302. This Technical Report Summary has been prepared in compliance therewith.
12. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[Luis J. Peloquin]

_____

Luis J. Peloquin, P.Eng.

ING. RAUL ESPINOZA, AusIMM (CP) - Mining

I, Ing. Raul Espinoza, AusIMM (CP), residing at Jirón 10 480 San Borja - Lima, Peru, do hereby certify that:

1. I am an independent engineering consultant working for Mining Plus Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of Pontificia Universidad Católica del Peru with a B.S. degree in Mining Engineering, and Master of Engineering degree in Mining from Curtin University in Australia, and I am a Professional Mining Engineer registered in Peru.
4. I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
5. I am a Chartered Professional in Mining (Reg. # 309581) of the Australasian Institute of Mining and Metallurgy (AusIMM), a professional mining organization, headquartered in Carlton - Victoria, Australia and whose membership is publicly available for review.
6. 6. I have practiced my profession continuously since 2001. My summarized career experience is as follows:
    - Technical Services Manager, Mining Plus, Peru — Oct 2018 - Present
    - Senior Mining Engineer, Mining Plus, Peru — May 2016 – Sep 2018
    - Superintendent Technical Services, Toromocho Mine, Minera Chinalco, Peru — Oct 2015 – Apr 2016
    - Superintendent Mine Planning, La Zanja Mine, Buenaventura, Peru — Jun 2013 – Set 2015
    - Long Term Planning Engineer OP, Kalgoorlie Consolidated Gold Mines, WA, Australia — Mar 2012 – May 2013
    - Staff Mining Engineer, St. Ives Gold Mine, GoldFields, WA, Australia — Jun 2009 – May 2011
    - Mining Consultant, Datamine, Australia — May 2008 – Jun 2009
    - Technical Manager, Datamine, Peru — Apr 2004 – May 2008
    - Staff Mining Engineer, Yauliyacu Mine, Glencore, Peru — Apr 2003– Sep 2003
    - Staff Mining Engineer, Yauli Mine, Volcan Mining Company, Peru — Oct 2002 – Mar 2003
    - Mining Engineer Graduate, Yauliyacu Mine, Glencore, Peru — Feb 2002 – Aug 2002
    - Blasting Technical Support Engineer, EXSA (Explosives Company) , Lima, Peru — Jan 2001 – Jun 2001
7. I have not visited the Property that is the subject of this Technical Report Summary. As a result of the COVID-19 travel restrictions, I performed a virtual site visit to the property.
8. I am responsible for information contained in chapters 1, 2, and 9 of this individual Technical Report Summary.
9. I am independent of the registrant applying the test in Section §229.1302. I am independent of the Vendor and the Property.
10. I have not had prior involvement with the Project that is the subject of this Technical Report Summary
11. I have read S-K Section §229.1302. This Technical Report Summary has been prepared in compliance therewith.
12. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[Ing. Raul Espinoza]

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Ing. Raul Espinoza, P.Eng.

MARIA DEL CARMEN MUÑOZ, P. G.

I, Maria del Carmen Muñoz, P. G., residing at Jr. Maipu 656, Dpto 301, Pueblo Libre in Lima- Perú, do hereby certify that:

1. I am an independent geology consultant working for Mining Plus Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of National University of San Agustín, Arequipa, Perú, with a B.S. degree in Geological Engineering and am a Chartered Professional (Geology) Peruvian College of Engineers (License No. CIP 115281).
4. I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
5. I am a registered member (Reg # 7570) of the of Australian Institute of Geoscientists (AIG), a professional geoscientists organization, headquartered in NSW Australia and whose membership is publicly available for review.
6. I have practiced my profession as Geologist since 2007, previous years I did internships and training and jobs as a Junior Geologist. My summarized career experience is as follows:
   - Senior Consulting Geologist – Mining Plus (Perú)) May 2019 - present
   - Senior Resource Geologist – Doe Run (Perú)) October 2018 – March 2019
   - Senior Independent Consulting Geologist – Mining Plus (Perú) May 2016 - December 2016
   - Mining Resources Development Manager - Issara Mining Limited (Thailand) April 2013 - March 2016
   - Senior Resource Estimation Geologist – Laguna Resources Chile Ltda (Chile) April 2010 - March 2013
   - Senior Modelling Geologist – Consorcio Minero Horizonte (Perú) July 2009 - January 2010
   - Modelling and Resource Estimation Geologist – Tamaya Resources (Chile) July 2007 - December 2008
7. I have not visited the Property that is the subject of this Technical Report Summary.
8. I am responsible for information contained in chapters 1, 11 and 12 of this individual Technical Report Summary.
9. I am independent of the registrant applying the test in Section §229.1302. I am independent of the Vendor and the Property.
10. I have not had prior involvement with the Project that is the subject of this Technical Report Summary
11. I have read S-K Section §229.1302. This Technical Report Summary has been prepared in compliance therewith.
12. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[Maria del Carmen Munoz]

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Maria del Carmen Munoz, P.G.

JESSIE LIU-ERNSTING, P.ENG., MBA

I, Jessie Liu-Ernsting, P.Eng., MBA, residing at 1286 Bishopstoke Way, Oakville, Ontario, Canada, L6J 6Z6, do hereby certify that:

1. I am an independent mineral economics consultant contracted by Mining Plus Consultants Inc.
2. This certificate applies to the Technical Report Summary titled "Technical Report Summary of the San José Mine Property, Santa Cruz Province, Argentina", (The "Technical Report Summary") with an effective date of December 25, 2020.
3. I am a graduate of Queen's University, Kingston, Ontario, Canada, in 2003 with a Bachelor of Science degree in Electrical Engineering. I am a graduate of Schulich School of Business, Toronto, Ontario, Canada, in 2013 with a Master of Business Administration degree.
4. I have read the definition of "Qualified Person" set out in S-K Section §229.1302 and certify that, by reason of my education, affiliation with a professional association (as defined in §229.1302) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of §229.1302.
5. I am registered as a Professional Engineer in the Province of Ontario (Reg. No. 100111253).
6. My relevant experience for the purpose of the Technical Report Summary has been acquired by the following summarized career experience:
   - Electrical Engineer, Golder Associates, Sudbury, ON — Nov 2005 – Nov 2006
   - Electrical Engineer, Hatch, Sudbury, ON, Mississauga, ON — Nov 2006 – Sep 2011
   - Mining Corporate Credit Summer Associate, CIBC Capital Markets, Toronto, ON — May 2012 – Aug 2012
   - Deal Manager, Resource Capital Funds, Toronto, ON, Denver CO — Aug 2013 – Dec 2018
   - Corporate Development Manager, Hudbay Minerals, Toronto, ON — Feb 2019 – Sep 2019
   - VP Corporate Development, Canada Nickel Company Inc., Toronto, ON — Oct 2019 – Present
   - Principal Consultant, Keystone Resource Solutions Corp., Toronto, ON — Jan 2019 – Present
7. I have not visited the Property that is the subject of this Technical Report Summary.
8. I have not had prior involvement with the Project that is the subject of this Technical Report Summary
9. I am responsible for authoring chapter 16 of this Technical Report Summary.
10. I am independent of the Issuer applying the test in Section §229.1302. I am independent of the Vendor and the Property.
11. I have read Section §229.1302 and this Technical Report Summary has been prepared in compliance therewith.
12. As of the effective date of this Technical Report Summary, to the best of my knowledge, information and belief, the Technical Report Summary contains all scientific and technical information that is required to be disclosed to make the Technical Report Summary not misleading.

Effective Date: December 25, 2020
Signing Date: April 20, 2021

{SIGNED AND SEALED}
[Jessie Liu-Ernsting]

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Jessie Liu-Ernsting, P.Eng.

2.2.2 Site Visits

During 2020, no site visits were completed by Mining Plus, but P&E qualified persons conducted site visits in January 2020. The impact of the COVID-19 pandemic made it virtually impossible to travel back and forth to the respective mine site in a reasonable manner. As a result, the registrant has facilitated a virtual site visit between Mining Plus QP, Ing. Raul Espinoza, and site-based personnel who were empowered to inspect, review, audit, and observe the San José property and report the results to Mining Plus through videos and documentation, as described below.

During March 2021, site staff completed a number of tasks directed by Mining Plus qualified person, Raul Espinoza. He required of San José's General Manager, Carlos Benavides, and Mine Planning and Projects Superintendent, Pedro Mujica, to organize an on-site representative to inspect both surface and underground works. The information was prepared by Daniel Gonza, Mine Planning Chief, who collected the data and sent the information digitally to Mining Plus. Also, numerous Hochschild staff were interviewed; and reporting data, systems, and processes were examined. San José mine provided videos and photos for the main areas to corroborate if the processes – like sample preparation, QA/QC, drillhole storage, lab analysis, mining methods practice and mineral processing procedures – are in accordance with those indicated at this Technical Report Summary.

At the level of mining and mineral processing, the procedures followed do not require further comments as they are in accordance with what is indicated in this Individual Technical Report Summary. Mining Plus was also able to examine the working area for the preparation of samples and chemical analysis, and has found it adequate, and the working protocol is consistent with the Individual Technical Report Summary.

Based on information provided by the registrant, Mining Plus has augmented the previous site visits with the following additional site visit information deemed relevant and adequate for their specific areas of expertise.

During the January 2017 site visit by P&E qualified persons named herein, 10 assay verification samples were taken from 10 drill holes from the 2016 drilling. Sample intervals were taken from a variety of low, medium, and high-grade mineralized material. The low-grade material was defined as the cut-off grade, between 2-2.5 g/t AuEq. The medium grade material was defined as the average grade, between 10-15 g/t AuEq. The high-grade material was defined as twice the average grade, between 20-30 g/t AuEq. The chosen intervals were then sampled by splitting the remaining half split core. The samples were documented, tagged with a unique sample number, bagged, and sealed with packing tape and taken by Mr. Puritch to the Alex Stewart laboratory in Perito Moreno.

At no time, prior to the time of sampling, were any employees or associates of MSC advised as to the location or identification of any of the sample intervals to be collected nor did they, at any time, have access to the sampled material.

A comparison of the P&E independent sample verification results versus the original assay results for gold and silver can be seen in Figure 2-1 and Figure 2-2. The P&E results for gold and silver were satisfactory and clearly demonstrate that the tenor of the mineralization is similar to what was originally reported.

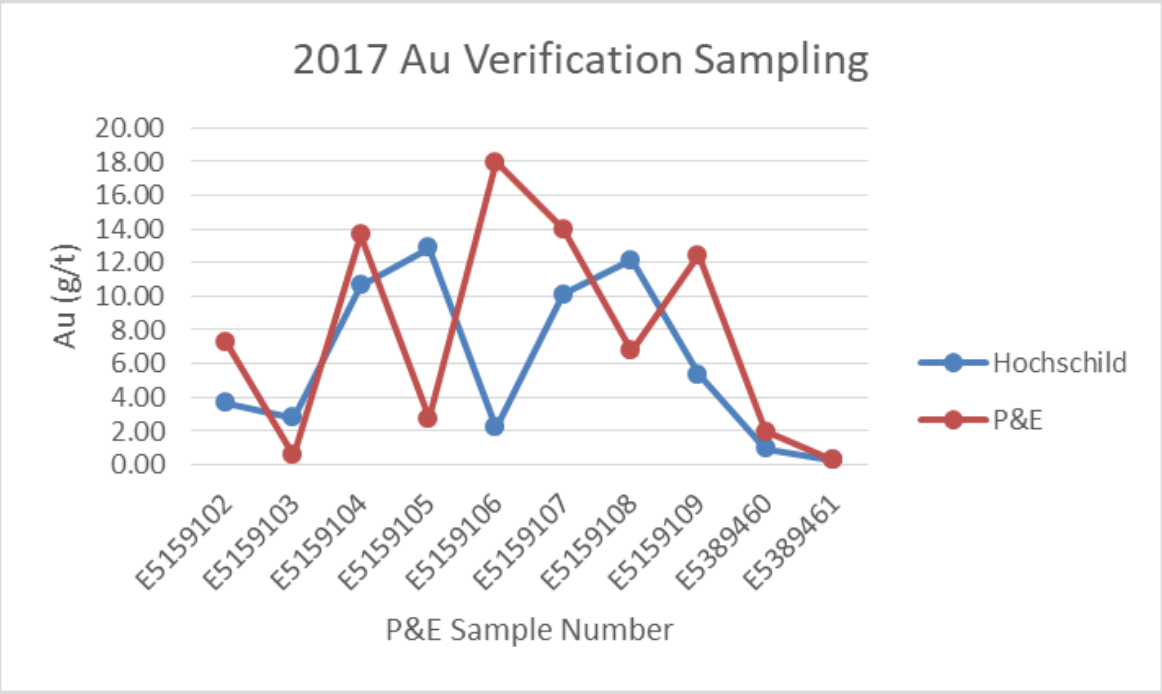

Figure 2-1 – 2017 Verification Sampling – Au

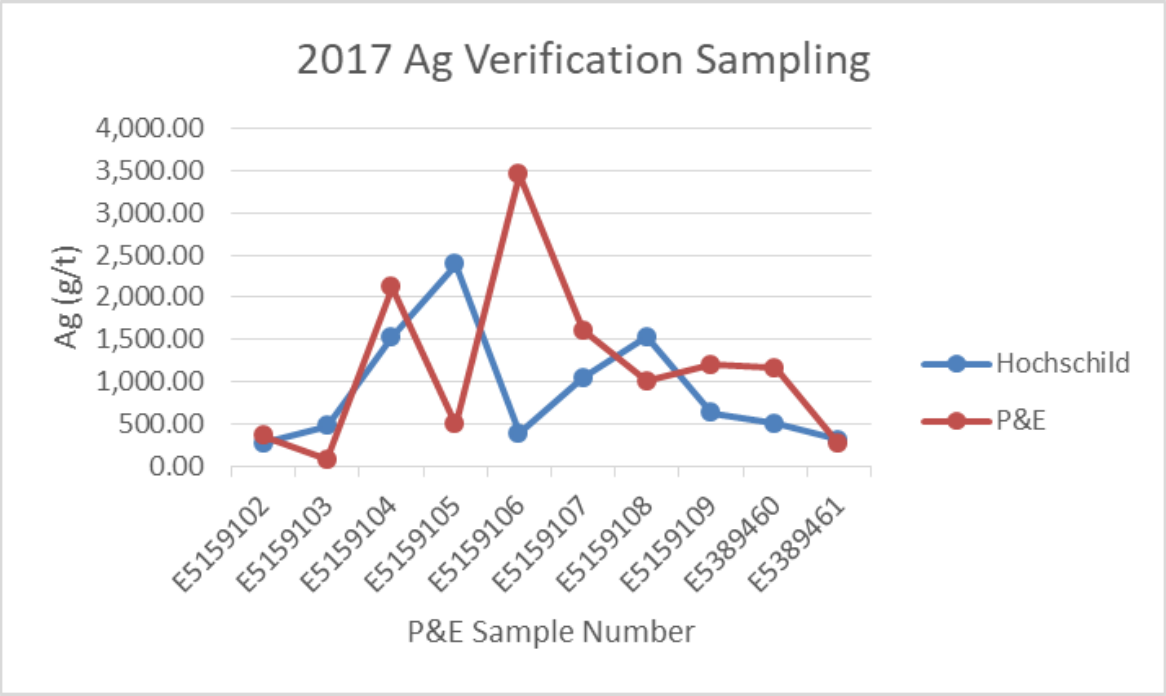

Figure 2-2 – 2017 Verification Sampling – Ag

2.3 Source of information

This individual Technical Report Summary is based, in part, on externally prepared public Technical Report disclosures, internal Company technical reports, data, and maps supplied by the registrant, published government reports, company letters, memoranda, public disclosure and public information as listed in the References at the conclusion of this Technical Report Summary.

Table 2-1 presents the authors and co-authors of each section of the Technical Report Summary, who acting as a Qualified Person as defined by S-K 1300 §229.1302, take responsibility for those sections of the Technical Report Summary as outlined in section 2.2.1 Contributing Authors.

Table 2-1 – Report Authors and Co-Authors

Report Authors and Co-Authors		
Qualified Person	**Employer**	**Sections of Technical Report Summary**
Mining Plus Consultants		
Scott G. Britton, P.E.	Mining Plus US Corporation	Peer review, Document Editor
Luis J. Peloquin, P.Eng.	Mining Plus Canada Consulting Ltd.	Co-author 1, 2, 4, 7,10, 11, 15, 19, 21, and 24, Document Editor
Ing., Raul Espinoza	Mining Plus Peru S.A.C.	Co-author 1, 2, 9
Maria del Carmen Muñoz	Mining Plus Peru S.A.C.	Co-author 1, 11, 12
P&E Consultants		
Mr. Fred Brown, P.Geo.	P&E Mining Consultants Inc.	Co-author 1, 11, 22, 23, and 25
Mr. David Burga, P.Geo.	P&E Mining Consultants Inc.	3, 4, 5, 6, 7, 8, 20 and Co-author 1, 11, 22, 23, and 25
Mr. D. Grant Feasby, P.Eng.	P&E Mining Consultants Inc.	10, 14, 17 and Co-author 1, 22, 23, and 25
Mr. James Pearson, P.Eng.	P&E Mining Consultants Inc.	12, 15, 18, 19 and Co-author 1, 13, 22, 23, and 25
Mr. Eugene Puritch, P.Eng.	P&E Mining Consultants Inc.	Co-author 1, 9, 11, 13, 22, 23 and 25
Mr. D. Gregory Robinson, P.Eng.	P&E Mining Consultants Inc.	Co-author 1, 13, 22, and 23
Keystone Resource Solutions Corp		
Jessie Liu-Ernstang	Keystone Resource Solutions Corp	16, Co-author 1

2.4 Units of Measure & Glossary of Terms

Unless otherwise stated all units used in this Individual Technical Report Summary are metric. Gold and silver assay values (“Au” and “Ag”) are reported in grams of metal per tonne (“g/t Au”) unless ounces per ton (“oz/T Au”) are specifically stated. The US$ (US Dollar) is used throughout this Technical Report Summary unless otherwise specifically stated.

Error! Reference source not found., shows the meaning of the abbreviations for technical terms used t hroughout the text of this Technical Report Summary.

The coordinate system used by MSC for locating and reporting drill hole information and channel sampling is Gauss Kruger, Zone 2. The majority of the Property maps in this Technical Report Summary use this coordinate system.

3 PROPERTY DESCRIPTION

3.1 Property Location, Country, Regional and Government Setting

The San José silver-gold property is located in the Province of Santa Cruz, Argentina, located approximately between latitude 46°41'S and 46°47'S and longitude 70°17'W and 70°00'W (Gauss Kruger, Zone 2 coordinates approximately 4,830,000N 2,400,000E) (Figure 3-1). The mine is located 1,750 km by air south-southwest of Buenos Aires and 230 km south-west of the Atlantic port of Comodoro Rivadavia. The nearest town is Perito Moreno, located approximately 50 km west of the Property.

Figure 3-1 – Location Map of the San José Property, Argentina

3.2 Mineral Tenure, Agreement and Royalties

The San José Property covers a total area of approximately 40,498.69 ha and consists of 50 contiguous mining concessions (all of which are "Minas" or approved mining claims) (**Error! Reference source not found.** and Figure 3-2). All of the concessions comprising the San José Property are in good standing.

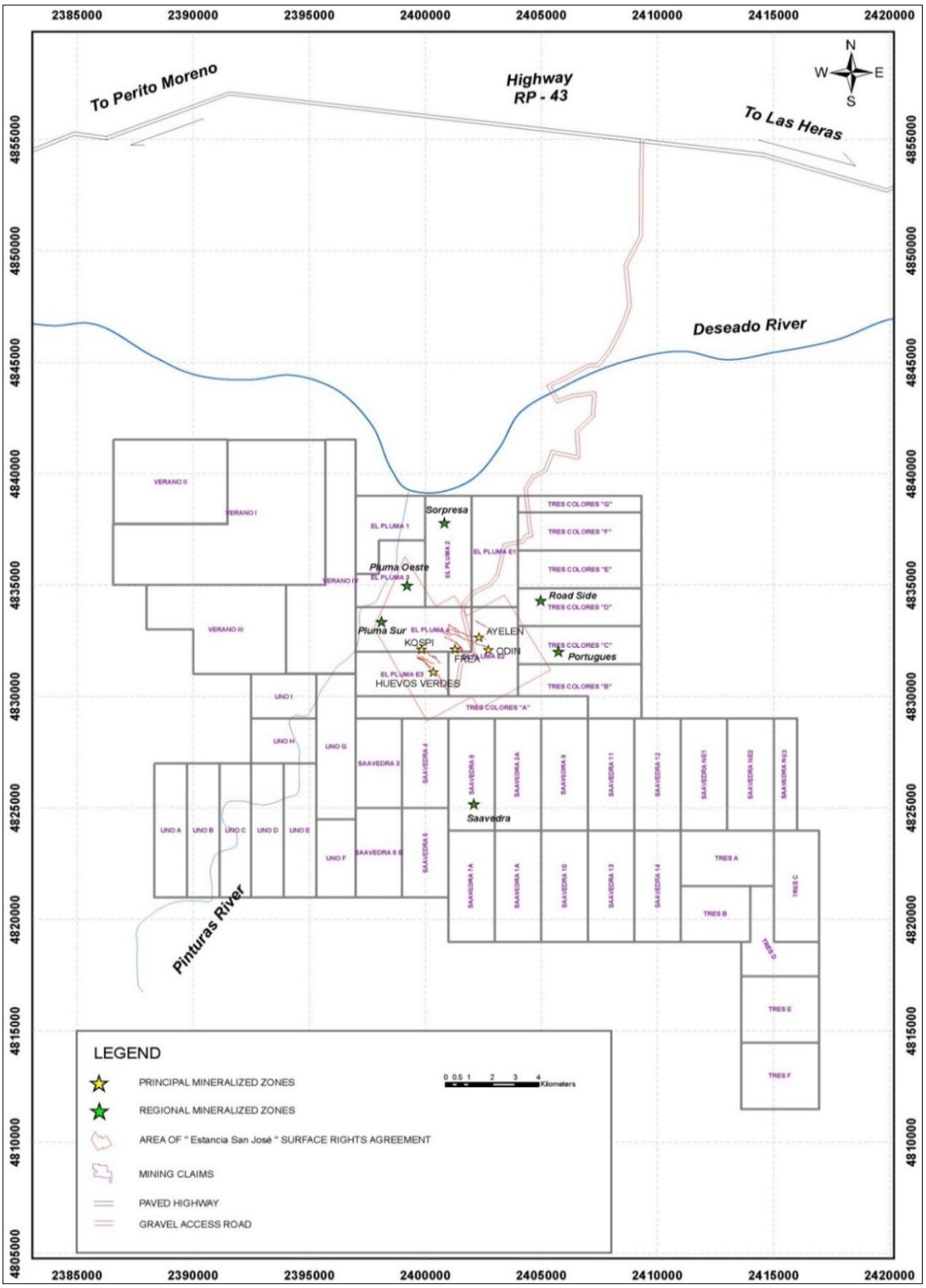

Figure 3-2 – Mining Concessions and Surface Rights of the Sand José Mine - Source: Hochschild (2019)

3.2.1 Surface Rights

A mining license alone is not sufficient to permit mining operations. Environmental and related surface permits are also required.

Despite the fact that mining rights and concessions do not establish ownership on the overlapping surface lands, such lands – and in some cases also the surface land contiguous to the mining area[1] – are legally subject to different types of mining easements (e.g., right of way, occupation of land, use of water, etc.) provided that compensation is paid to the surface landowner. When no agreement is reached between the surface owner and the miner regarding compensation, resolution of the issue shall be fixed by the Courts. Meanwhile, the miner can start or continue with the mining activities, by establishing a bond or guarantee to the benefit of the surface owner, in a reasonable amount, thus ensuring that some compensation shall be paid, once finally determined by the Court.

No mining easement is required when the miner owns the surface land overlapping its mining concessions.

3.2.2 Mineral Rights

Under the Argentinean National (Federal) Constitution, natural resources, including Mineral Resources, are owned by the provinces where those resources are located. Argentina has provincial mining procedural codes which apply on a provincial basis, and core legislation, passed by the National Congress, which is applicable throughout the country. The main national legislation is the Mining Code, which regulates the exploration and exploitation of Mineral Resources. Other legislation relevant to the mining industry includes environmental laws passed at both national and provincial level, the national Mining Investment Law (Law No 24,196) and the provincial royalty laws. In Santa Cruz province, all concessions are granted by an administrative action under the authority of the Provincial Mining Office according to Provincial Law No. 990 (Godoy 2007).

Mineral rights in Argentina are separate from surface ownership and are owned by the provinces where the minerals are located. Under the Mining Code, two types of mineral permit may be granted:

- Exploration permits (or “cateos”) grant the holder the right to explore minerals within a certain area for a limited period of time; and
- Mining concessions (or “minas”) grant the holder the right to mine and process ore for an unlimited period of time (subject to the fulfillment of certain obligations).

[1] The mining easement on the overlapping surface land is mandatory; the mining easement on the surface land contiguous to the mining area needs to be granted by the Authority upon verification of additional requirements.

Mining concessions may be granted for the mining and processing of any minerals (other than uranium and thorium, which are governed by separate regulations) within the concession. The existence of an exploration permit is not a condition to the granting of a mining concession, and mining concessions can be granted to protect a discovery made within an exploration permit held by the discoverer or on available land.

As with exploration permits, concessions can vary in size and number depending on the type of mineral. Mining concessions also grant the holder the right to request rights of way over the surface land in question from the relevant mining authority, in order to enable the concession holder to commence development of the property. Concession holders may also apply to the courts for a judgment requiring the owner of the surface land to sell the land covered by the concession to the concession holder.

Under Argentinean Law, mining concessions are real property, which can be transferred freely and can also be mortgaged. Concession holders are not required to be domiciled in Argentina. However, it is not possible for a foreign holder of mining concessions located in Argentina to develop a project without organizing a local subsidiary, due to corporate, tax, labour laws, and other reasons.

Concessions are granted for unlimited periods of time, subject to the following conditions: (a) the payment twice a year of a mining fee (or "canon") of 80 Argentine Pesos per unit, or pertenencia (either an exploration permit unit or a mining concession unit); and (b) the filing of a minimum investment plan and compliance with a one-off minimum investment in the concession equal to 500 times the relevant canon over a five year period. Of the figure set out in the minimum investment plan for investment over five-years, 20% must be invested in the first two years. Failure to comply with these conditions may result in the termination of the concession. There are no production target obligations on the holders of a mining concession.

3.2.3 Mining Royalties

The registrant is a 49% holder in the mining property, and as such, is required to pay royalties consistent with the percentage of ownership.

As legal owners of the Mineral Resources, provinces are entitled to request royalties from mine operators. Regulations vary from province to province. In Santa Cruz, where the San José Property is located, the royalty is fixed at a maximum of 3% of the mine-site revenue per year, payable monthly. However, under the resolutions originally issued by the province, the mining royalties were fixed at 1.85% of the mine-site revenue per year when the final product is doré, and 2.55% when the final products are concentrates or precipitates. In December of 2012, the province increased the royalty to 3% of the mine-site revenue.

MSC paid US$5.2 M in mining royalties during 2020.

The National Export Retention Tax is fixed at 3 Argentine Pesos per $US1.00 of concentrate or doré bar revenue exported by MSC; however, if such bars contain 2% (or more) of gold the applicable export tax is 4 Argentine Pesos per $US1.00 of revenue exported. Rebates related to the shipment of products from a Patagonian maritime port are no longer available.

A new provincial tax was created in 2013, under which mining companies must pay, on a yearly basis, 1% of their Proven Mineral Reserves. MSC filed a legal claim before the National Supreme Court arguing the un-constitutionality of this tax. In 2016, the lawsuit was settled under the following terms:

(i) the province of Santa Cruz abrogated the law that created the new tax;
(ii) MSC dropped its lawsuit; and
(iii) the province and MSC entered into a trust agreement under which MSC committed to make certain contributions to the province, and the province committed to apply such contributions to finance infrastructure and other needs of the province. The amount of such contribution is calculated as a percentage of MSC's revenues depending on the international price of metals, as presented in Table 3-1.

Table 3-1 – MSC Contribution as a Percentage of MSC'S Revenue

International Price of Au per oz	% of MSC's Revenues
More than US$1,274.99	2.0%
Between US$1,150 and US$1,274.99	1.5%
Between US$1,000 and US$1,149.99	1.0%
Between US$750 and US$999.99	0.5%
Below US$750	0.0%
International Price of Ag per oz	**% of MSC's Revenues**
More than US$19.50	2.0%
Between US$18.01 and US$19.50	1.5%
Between US$16.51 and US$18	1.0%
Between US$15 and US$16.50	0.5%
Below US$15	0.0%

3.3 Environmental Liabilities and Other Permitting Requirements

Other permits applied and/or accepted in order to advance the Property are outlined in **Error! Reference s ource not found.**. Grants of mining rights, including water rights, are subject to the rights of prior users. The mining code also contains environmental and safety provisions administered by the provinces.

Environmental Impact Reports ("EIR") must be submitted to the provincial government prior to conducting mining operations. On March 1, 2006, MSC received approval for the Environment Impact Assessment ("EIA") for the Property. The EIR must describe the proposed operation and the methods that

will be used to prevent undue environmental damage and must be updated bi-annually. Mine operators are liable for environmental damage and violators of environmental standards may be required to shut down mining operations. An EIR must be submitted every two years in accordance with Argentinean law.

All of the known mineralized zones, Mineral Resources and Mineral Reserves and active mine workings, existing tailings ponds, waste etc., are within MSC's concessions.

There are no other back-in rights, payments or other agreements or encumbrances or environmental liabilities to which the Property is subjected. All necessary work permits have been acquired and are in good standing.

3.4 Mineral and Surface Purchase Agreements

To ensure the integrity of its operations, Minera Santa Cruz S.A. ("MSC") has purchased land and correspondingly the surface occupation rights in 2002 from the Beitia Family known as "Estancia San José", for an area of 2,875 ha covering the area required to construct the mine and the facilities for San José. The sale price agreed on was US$353,400. An amendment to the agreement on November 11, 2005 allowed MSC to adjust the location of Estancia San José. MSC was granted easement rights and use of existing roads covered by the surface rights.

MSC quarries material from Estancia San José for road construction and other mining operations. The owners of Estancia San José are entitled to collect US$0.90 plus VAT/m3 for rock extracted.

A new agreement signed on June 1, 2006 ratified easement rights, and detailed and regulated the obligations of each party in connection with the easements. The owners of Estancia San José shall be entitled to collect compensation from MSC as noted below:

- MSC quarries material from Estancia San José and the owners of Estancia San José collect US$0.90 plus VAT/$m^3$ for rock extracted.
- If MSC performs exploration activities, compensation to the owners of Estancia San José will be paid as follows:
    - Construction of Mining Road: US$270/km.
    - Construction of other roads: US$250/km.
    - Construction of trenches: US$450/km.
    - A monthly payment of US$950 will be paid to the owners of the Estancia San José for the use of a house located in the Estancia San José. Payment of this price also entitles MSC to use roads connecting Estancia San José and the neighbouring properties.

To further clarify the compensation arrangements the following agreements were established:

- In May of 2012, the Beitia family granted MSC a right of access to Estancia Pituras charging US$36,000 per year.
- On February 14, 2006, MSC together with members of the Flores family purchased the surface rights to 'Estancia La Carmencita', a 5,543 ha land package covering a portion of the area between Highway 43 and the Estancia San José where the mine facilities are located. MSC holds 66.6% of the surface rights to Estancia La Carmencita which grants MSC free right of access. All obligations regarding this transaction have been completed by MSC.

The two agreements cover the main access route to the Property from Highway 43, and all required mine infrastructure, tailings, dumps, etc. MSC has expressed its intent to purchase additional land in due course, as may be necessary to ensure its control of any target areas of economic mineralization. The location of concessions and the limit of the MSC surface rights are shown in Figure 3-2 in Section 3.2 Mineral Tenure, Agreement and Royalties.

On June 18, 2010 MSC purchased 3,725 ha located in Estancia Pinturas. The purchase enabled MSC to carry out mining activity in Saavedra. The purchase price was US$1.05 M. The purchase deed was executed on December 15, 2011 and is registered with the Registry of Real Estate Property.

4 ACCESSIBILITY, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES, AND INFRASTRUCTURE

4.1 Accessibility

The principal access route to the San José Mine comprises a good unsealed (gravel) road section of 29 km and then paved road to the port of Comodoro Rivadavia, a total distance of 350 km. Comodoro Rivadavia has scheduled national air services to Buenos Aires, the capital of Argentina, with international flight connections. Principal road connections are illustrated in Figure 4-1.

The main incoming materials are diesel fuel, process plant chemicals, cement, timber supports, spare parts, explosives, zinc powder, sodium cyanide and hydrogen peroxide. Transportation of materials to and from the Property is by highway transport truck. Mine haulage roads provide access from the mine portals to the ore stockpile at the process facility and temporary rock stockpile facilities. Concentrate is exported via the port of Puerto Deseado in the province of Santa Cruz, 250 km south of Comodoro Rivadavia.

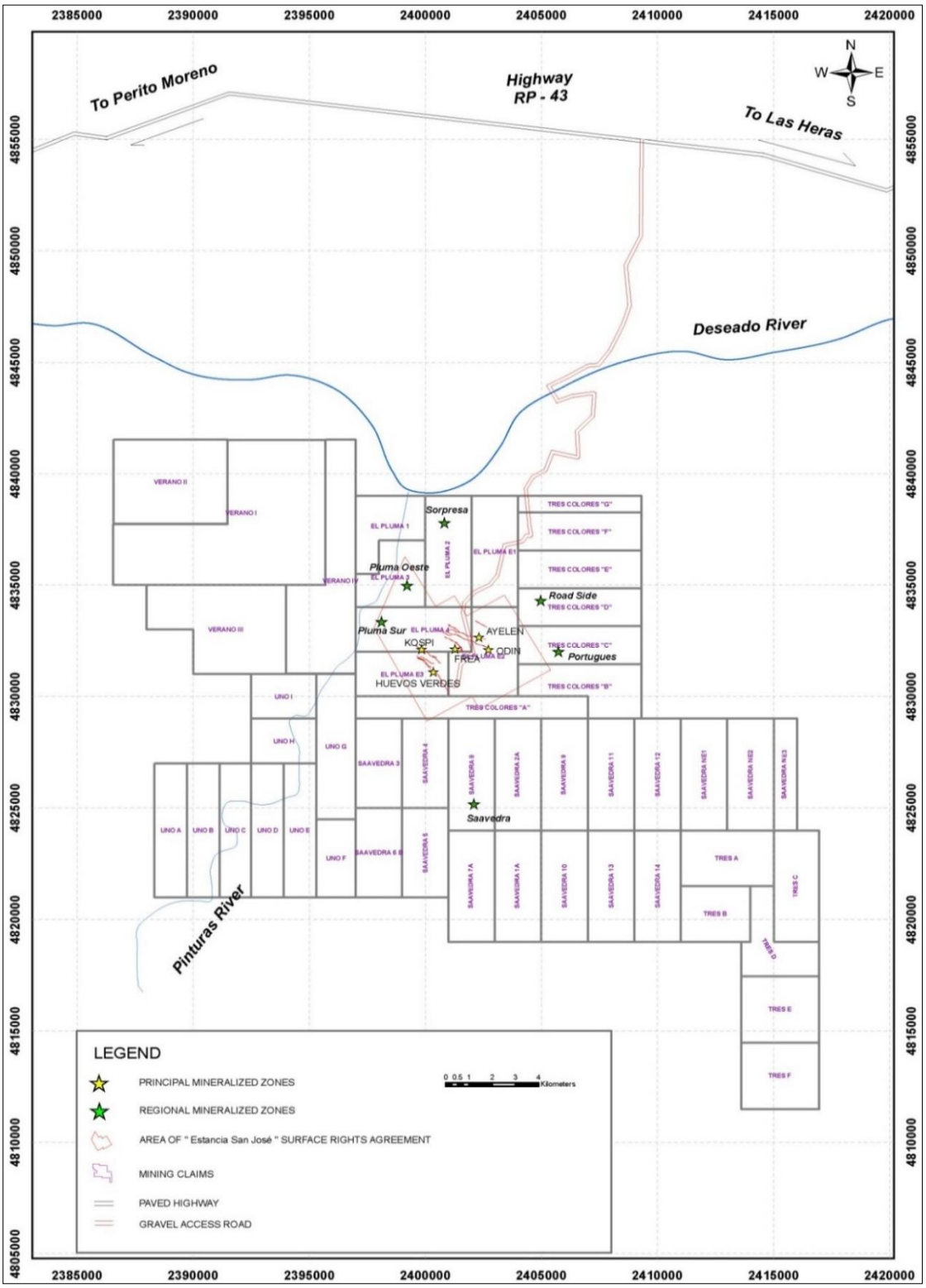

Figure 4-1 – Mining Concessions and Surface Rights of the Sand José Mine - Source: Hochschild (2019)

4.2 Topography, Elevation, Vegetation and Climate

The topography of the Property in Argentina is gently rolling, with a few deeply incised valleys. Elevations on the Property vary between approximately 300 masl and 700 masl above sea level. The Property area is semi-desert. Vegetation comprises low scrub bushes and grass, typical of harsh climate and poor soils. A photograph depicting the local topography and flora is found in Figure 4-2. Local fauna consists of birds, small mammals, and reptiles. Most of the Property area is uninhabited, however, it is occasionally used by local farmers for sheep and cattle grazing.

Figure 4-2 – San José Mine Site – Source: Google Maps, R. Denes

The Property is within an arid to semi-arid area of Argentina, with short warm summers with temperatures above 10°C and winters with temperatures commonly below 0°C. Strong and persistent winds can be encountered especially during the warmer months (October to May). Average rainfall at the site is estimated to be 144 mm and snowfall amounts to 32.5 mm. The annual average temperature is 8.9°C. MSC has maintained a weather station at the Property since January 2005. Mining and exploration can continue year-round in this part of Argentina.

4.3 Local Infrastructure and Resources

The nearest town to the Property in Argentina is Perito Moreno, approximately 50 km to the west, as shown in Figure 4-3. Las Heras and Pico Truncado are other small towns (populations ranging from approximately 3,600 to 15,000), which mostly provide labour for the oil industry to the northeast of San José, or, in the case of Perito Moreno, for tourism and agricultural purposes. These towns have grown during the last decade from supplying only the most basic needs (food, accommodations, fuel, hardware, labour, etc.) for projects in the early stages of exploration to centres that are more advanced in their abilities to supply services to operating and developing mines. Other major services are provided by Caleta Olivia, Comodoro Rivadavia, or Buenos Aires.

Figure 4-3 – San José Mine Site (Minera Santa Cruz) in Relation to Perito Moreno Town – Source: Google Maps

The immediate area surrounding the Property is isolated, and initially electrical power was provided at the mine and plant site by diesel generators. It was determined that a more cost effective and longer-term option would be to connect the site to the national grid, which required a power line spur of 130 km of 132 kV electric line. The transmission line was completed in March 20, 2009 at a cost of US$21 M. The diesel generators, which are fully capable of providing sufficient power for the expanded 1,650 tpd operation, remain on site for emergency back-up power generation.

Fresh water is obtained from wells, which have been situated in order to dewater the Frea Vein mining area. Water is stored in a surface impoundment. Water for the underground mine is sourced from the mine site settling ponds.

The closest deep-water port facility is at Comodoro Rivadavia, a driving distance of approximately 350 km. Alternatively, the port of Puerto Deseado is located approximately 400 km east–southeast of the Property.

The San José Property consists of camp facilities that can accommodate up to 712 personnel, medical clinic, security building, maintenance shop, processing facilities, mine and process facility warehouse, surface tailings impoundment, support buildings and mine portals, change house, core shack, an administration building and offices.

MSC has installed a cellular-based telephone, data, and internet communication system. A satellite-based communication system remains as a back-up.

5 HISTORY

5.1 Historical Exploration and Drill Programs

Historical ownership and exploration of the San José Property are summarized below.

There is no formally recorded exploration on the Property prior to work carried out by Minera Andes Inc. (acquired by McEwen in 2012). The Property was acquired by Minera Andes after a regional structural study and prospecting program uncovered areas of Landsat colour anomalies, and coincident anomalous gold and silver values. Based on these results, Minera Andes embarked on an exploration program commencing in 1997. Information on exploration on the San José Property from 1997 to December 2013 is described in Table 5-1.

Table 5-1 – Summary of Exploration on the San José Property, 1997-2013

Year	Operators	Description
1997 to 2001	Minera Andes	5-year program consisting of prospecting; soil sampling; stream sediment sampling; mapping and sampling; trenching and channel chip sampling. IP/Resistivity (74 line km) CSAMT (42 line km) and magnetic surveys (186 line km) by Quantec Geofisica Argentina S.A. RC drilling (85 holes) and diamond drilling (3 holes); alteration studies (Portable Infrared Mineral Analyzer); metallurgical studies; discovery of Saavedra West and Huevos Verdes Zones, plus numerous prospects.
2001 to 2003	MSC	JV company created between Minera Andes and Hochschild; 2-year program consisting of surveying; IP/Resistivity (45 line km), and Real Section IP (20.25 line km) surveys by Quantec Geofisica Argentina S.A.; diamond drilling (30 holes); further definition of the Huevos Verdes Zone; Mineral Resource Estimates at Huevos Verdes and Saavedra West Vein and Breccia Zones.
2003 to 2004	MSC	Hochschild vested at 51% ownership; 2-year program consisting of underground development at HVN and HVS; surface rights land purchasing; road construction; diamond drilling (39 holes); program further outlined the Huevos Verdes Zone and resulted in the discovery of the Frea Zone.
2004 to 2005	MSC	Definition-style diamond drilling (144 holes). Initiation of Feasibility Study including Mineral Resource and Mineral Reserve Estimates at Huevos Verdes and Frea managed by MTB Project Management Professionals Inc. of Denver, USA, includes mine design, capital and operating cost estimation, metallurgical, geotechnical environmental EIA and social studies by Vector Argentina, AMEC retained to do Mineral Resource audit; continued underground development on 480 and 430 levels at HVN and HVS; IP/Resistivity (215 line km) surveys; additional 38 diamond drill holes to test regional targets.
October 2005	MSC	Completion of Feasibility Study in October 2005, decision to proceed to production was made on March 28, 2006.
November 2005 to June 2006	MSC	Phase 1 and Phase 2 drilling at Kospi Vein (128 holes); EIA approved by DPM on March 1, 2006; continued underground development (ramp construction and drifting at HVS and Frea); Granting of Environmental Permit, production decision (March 28, 2006); change of metallurgical processing and recovery methodology to a Gekko system; supporting metallurgical testwork; mine construction, permitting.

July 2006 to September 2007	MSC	On-going plant and infrastructure construction, continued mine development, Mineral Resource/Mineral Reserve Estimate (Huevos Verdes, Frea, Kospi), continued metallurgical testwork, official mine opening (June 26, 2007), continued drilling of regional prospects.
September 2007	MSC	Preparation of a Technical Report by AMEC, including a Mineral Resource and Mineral Reserve Estimate with effective date of December 31, 2006
October 2010 to December 2010	MSC	Drilling focused on extending Micaela, Luili; Susana, Rml and HVSur veins in order to identify new areas of mineralization and extensions. Drilling was also undertaken at the Saavedra Oeste prospects to identify new veins and mineralization. Ground magnetic survey conducted over 342 km. 4 lines of IP totalling 19.45 km conducted on North block. 19 lines of IP totalling 99 km conducted on South block.
January 2011 to December 2011	MSC	Drilling focused on the Pilar, Luli, Antonella, Rml 861 A, Dalila and Sanson veins, in order to increase Mineral Resources and infill drilling on known Veins: Micaela, Sofia, Luli, HVN A, Ramal A, Ramal Ayelen and Susana. This drilling identified new exploration targets, Pluma and Linea 4.
January 2012 to December 2012	MSC	Drilling focused on increasing Mineral Resources on the Pilar Veins while new exploration targets were identified in the Emilia, Estela and Esperanza veins. 3 lines of IP/resistivity totalling 23 km were conducted and 3 lines of pole-dipole IP totalling 20 km were conducted on the Property.
January 2013 to December 2013	MSC	Drilling focused on increasing Mineral Resources on the Esperanza, Estela, Kospi SE, Kospi SW, Kospi, Kospi Ramal X, Ramal Frea, Juanita, Saavedra Pit veins while new exploration targets were identified in the Juanita, Zona 2, 290+Emilia, Pablo G, Kospi SE, and Saavedra Southwest veins.

From 1998 to 2017, 2,586 reverse circulation ("RC") and diamond drill exploration surface and underground drill holes totalling 506,979 m were drilled on the Property. Table 5-2 gives the details on the program for each year to December 2017.

Table 5-2 – Drilling Program on the San José Property, 1998-2017

Year	No. of Drill Holes	Length (m)	Hole Type	Company
1998	38	3,956	RC	Minera Andes
1999	21	1,648	RC	Minera Andes
2000	29	3,698	RC & Core	Minera Andes
2001	19	3,127	Core	MSC
2002	1	81	Core	MSC
2003	6	777	Core	MSC
2004	105	12,423	RC & Core	MSC
2005	454	56,979	Core	MSC
2006	137	23,655	Core	MSC
2007	127	29,821	Core	MSC
2008	85	19,633	Core	MSC
2009	112	24,617	Core	MSC
2010	257	54,041	Core	MSC
2011	239	61,560	Core	MSC
2012	471	97,922	Core	MSC
2013	96	24,248	Core	MSC
2014	56	16,721	Core	MSC
2015	117	22,192	Core	MSC
2016	88	21,583	Core	MSC
2017	128	28,300	Core	MSC
Total	**2,586**	**506,979**		

5.2 Historical Resource and Reserve Estimates

A Mineral Resource Estimate, compliant with CIM NI43-101 Standards, was completed in 2002 for the Huevos Verdes Vein, the Saavedra West Vein, and the Breccia Zones, reported by Cinits et al. (2002). Cinits et al. (2005, 2007) and Colquhoun et al. (2007) for Minera Andes Inc. reported NI 43-101 Mineral Resource and Mineral Reserve Estimates in 2005 for the Huevos Verdes and Frea Veins, and in 2007 for the Huevos Verdes, Frea and Kospi Veins. Mach and Elliott (2009) reported Mineral Resource and Mineral Reserve Estimates, effective June 30, 2008, for the Huevos Verdes, Frea and Kospi Veins as well as Mineral Resource Estimates for the Odín, Ayelén and Huevos Verdes Ramal Veins. Mineral Resource and Mineral Reserve Estimates are summarized by Puritch et al (2010), and the 2011 and 2012 Estimates are summarized by Puritch et al (2012).

Historical Mineral Resource Estimates for the San José Property as at December 31, 2013 were reviewed by P&E for their August 15, 2014 Technical Report (Puritch et al., 2014). A Qualified Person has not done

sufficient work to classify the historical estimate as a current Mineral Resource or Mineral Reserve; and Hochschild is not treating the historical estimate as current Mineral Resources or Mineral Reserves.

Measured and Indicated Mineral Resources as of December 31, 2013, at the San José Mine, were 4.4 Mt at 515 g/t Ag and 7.45 g/t Au containing 72.8 million silver ounces and 1,053,300 ounces of gold at a cut-off grade of 215 g/t AgEq. Inferred Mineral Resources as at December 31, 2013, at the San José Mine, were 1.9 Mt at 455 g/t Ag and 7.23 g/t Au containing 27.1 million silver ounces and 430,600 ounces of gold at a cut-off grade of 215 g/t AgEq. Refer to Table 5-3.

Mineral Reserves were estimated from selected diluted and extracted Measured and Indicated Mineral Resources. As of December 31, 2013, Mineral Reserves totalled 1,813,300 t, at 515 g/t Ag and 7.03 g/t Au containing 54.6 Moz AgEq. A summary of these Mineral Reserves is presented in Table 5-4.

It should be noted that historical Mineral Resource and Reserve Estimates presented in this Section are superseded by the Mineral Resource Estimate and Mineral Reserve Estimate presented in Sections 11 Mineral Resource Estimates and 12 Mineral Reserves Estimates of this Technical Report, respectively.

Table 5-3 – Historical Mineral Resources as of December 31, 2013[1-5]

Resource Classification	Tonnes	Ag (g/t)	Au (g/t)	Ag (Moz)	Au (koz)	Metallurgical Recovery	
						Ag (%)	Au (%)
Measured	1,523,936	640	8.85	31.4	433.6	89.8	90.0
Indicated	2,873,987	448	6.71	41.4	619.7	89.8	90.0
Measured + Indicated	4,397,923	515	7.45	72.8	1053.3	89.8	90.0
Inferred	1,851,710	455	7.23	27.1	430.6	89.8	90.0

1) Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2) The quantity and grade of reported Inferred Mineral Resources are uncertain in nature and there has been insufficient exploration to define these Inferred Mineral Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource classification.
3) Mining Plus has reviewed this information submitted by the registrant in their filed NI43-101 Technical Report. The information is based on Hochschild consultant, P&E, who believes the reported Mineral Resources are in compliance with the generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Mining Plus believes these reported resources conform to SEC S-K1300 requirements.
4) The cut-off of 213 g/t AgEq is based on a gold price of US$1,200/oz and a silver price of US$20/oz.
5) Mineral Resources are exclusive of Mineral Reserves

Table 5-4 – Historical Mineral Reserves as of December 31, 2013[1-3]

Resource Classification	Tonnes	Ag	Au	AgEq	Ag	Au	Metallurgical Recovery	
	(k)	(g/t)	(g/t)	(g/t)	(Moz)	(koz)	Ag	Au
Proven	950	597	7.82	1,066	18.24	238.91	89.8	90.0
Probable	863	426	6.15	795	11.81	170.72	89.8	90.0
Proven + Probable	1,813	515	7.03	937	30.05	409.63	89.8	90.0

1) Mining Plus has reviewed this information submitted by the registrant in their filed NI43-101 Technical Report. The information is based on Hochschild consultant, P&E, who bases P&E's knowledge that there are no environmental, permitting, legal, title, taxation, socio-economic political issues at would materially affect these Mineral Reserves.

2) P&E used a historical gold price of US$1,200/oz and a silver price of US$20/oz.

3) The cut-off value used to estimate Mineral Reserves is based on historical January to October 2013 geologic, mining, process plant and mine administration variable and fixed costs. P&E considers these costs to be reasonable as a basis for estimating Mineral Reserves.

5.3 Historical Production

Minera Andes Inc. ("Minera Andes") (acquired by McEwen in 2012) staked the Property in 1997 and the initial work conducted by them in the late 1990s was the first exploration work formally recorded on the Property. Minera Andes carried out an intensive exploration program from 1997 to 2001, leading to the discovery of the Huevos Verdes and Saavedra West zones. In March 2001, Minera Andes signed a JV agreement with Hochschild. A Feasibility Study was completed in October 2005 and the decision to proceed to production was made on March 28, 2006. Ongoing plant, infrastructure construction and mine development continued from July 2006 to September 2007. The official mine opening was on June 26, 2007 and commercial production commenced on January 1, 2008.

The 1,650 tpd San José process plant includes conventional crushing-grinding-flotation plus leaching and foundry facilities. Approximately 50% of the flotation concentrate is cyanide leached and silver and gold are recovered as doré on site. The current cyanidation circuit has insufficient capacity to process all of the concentrate, therefore the balance of production is bagged and shipped to a smelter. The on-site metal production process steps include intensive cyanide leaching of flotation concentrate followed by solution recovery and clarification and electrowinning to produce a precipitate product. The precipitate is smelted in furnaces to produce doré bullion that goes to a refinery. A small Merrill Crowe facility was formerly dedicated to recovering gold and silver from cyanide leach tailings pond water, however, has recently also been used to process a portion of clarified barren solution. Housekeeping and attention to worker safety continue to be plant management priorities.

Metallurgical performance has recently been very steady with most important parameters meeting or exceeding plans. The last eight-year average process recoveries of gold and silver have been 87.85% and 87.97%, respectively. In 2019, the overall gold and silver recoveries were 88.55% and 88.26%, respectively. 2019 production amounted to 15,390 koz AgEq.

Flotation tailings had been pumped as slurry to the number 3 tailings storage facility 1.6 km from the process plant. In early 2019, a tailings dewatering plant was commissioned near the number 3 facility,

and tailings began to be disposed as a semi-dry cake. Leached tailings are disposed in the number 2 tailings storage facility, which is a fenced and double-lined facility.

Operations have been affected by the Covid-19 pandemic. The San José Mine operations were suspended on March 20, 2020 and mining partially resumed in mid-April. Ore processing was re-established on April 27, 2020. Due to sanitary restrictions, it was not possible to re-mobilize the entire workforce, and it is estimated that the production level will remain at 70% to 75% of full capacity until at least December 2020. The 2021 planned mining capacity is projected at 91%. The Mine continues to closely monitor the situation.

6 GEOLOGICAL SETTING AND MINERALIZATION AND DEPOSIT

6.1 Regional Geology

The San José Property is located in the northwest corner of the 60,000 km2 Deseado Massif of the Santa Cruz Province, Argentina (Figure 6-1). The Deseado Massif consists of Paleozoic metamorphic basement unconformably overlain by Middle to Upper Jurassic bimodal andesitic and rhyolitic volcanics and volcaniclastics. Cretaceous sediments and Tertiary to Quaternary basalts overlie the Jurassic volcanics.

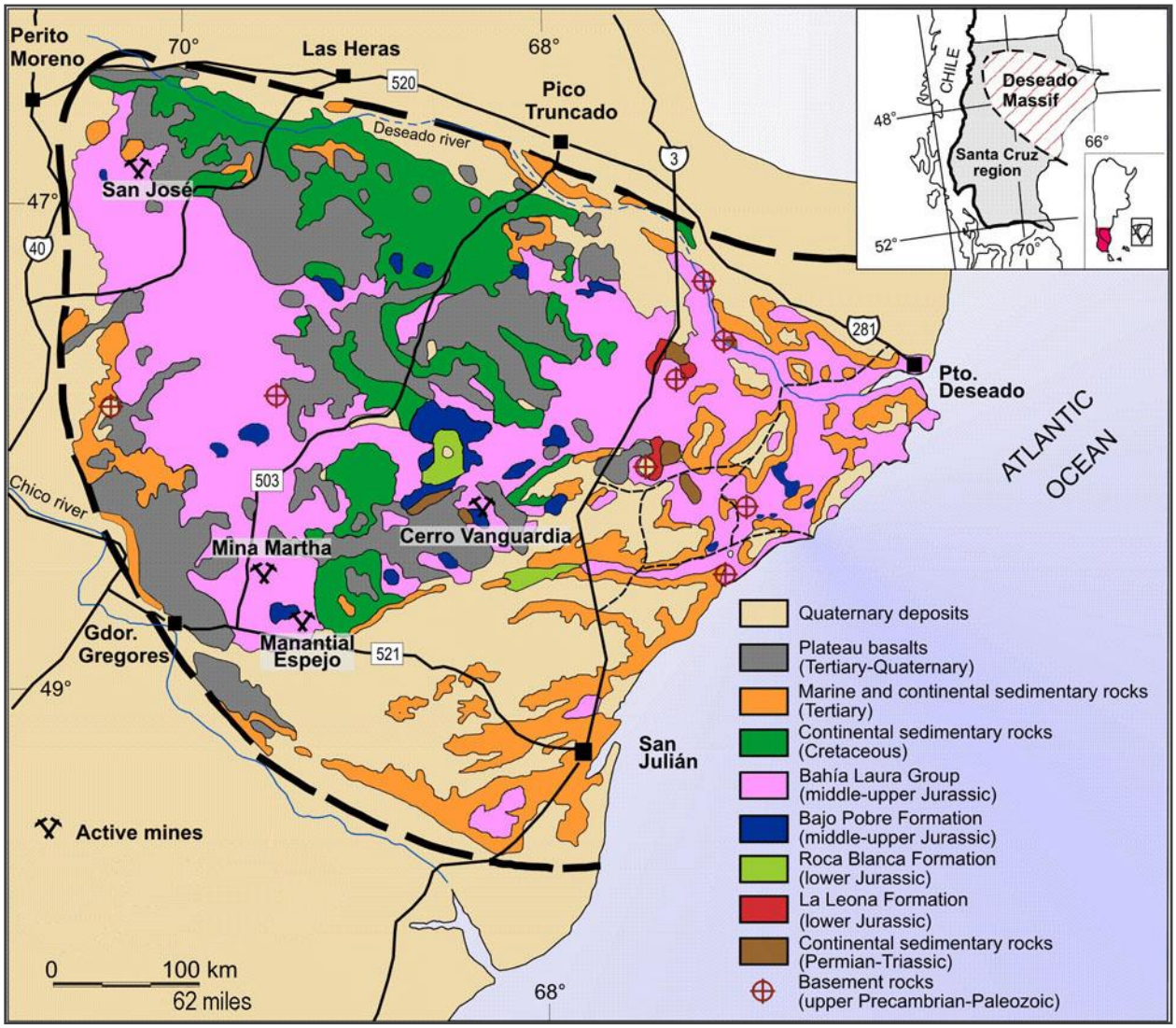

Figure 6-1 – Geology of the Deseado Massif, Argentina – Source: Hochschild (2019)

Jurassic magmatism in the Deseado Massif accompanied extensional tectonics marked by normal faults, horst and graben formation, and block tilting during the opening of the southern Atlantic Ocean. Several small basins formed after the main volcanic episodes, a consequence of intense diastrophic block faulting. Continental sediments were deposited in the Upper Jurassic to Lower Cretaceous in those basins, represented by tuffaceous sandstones, tuffites, limestones, conglomerates, and shales. Low sulphidation ("LS") epithermal silver-gold deposits accompanied magmatism and deformation. Basaltic plateau volcanism was dominant during the Tertiary span, coupled with minor marine ingressions that produced the deposition of sandstones, shales, and fossiliferous limestones. Intrusive rocks are scarce in the area. They are represented by irregular bodies of rhyolitic porphyries that intrude the main silicic volcanic units, and by basaltic plugs that pierce the whole sequence.

Large amounts of intermediate to silicic volcanics were erupted in the Jurassic period, in a sub-aerial, cratonic back-arc tensional environment. These volcanics are subdivided into the Bajo Pobre Formation, predominantly of intermediate to basic composition, and the felsic Bahia Laura Group that discordantly overlies the Bajo Pobre Formation. The Bahia Laura Group is further subdivided into the interdigitating Chon Aike Formation (dominantly ignimbrites) and the La Matilde Formation (dominantly volcaniclastics).

The volcanic rocks of the Deseado Massif host the producing silver-gold mines of Cerro Vanguardia, Marta Mine, Manantial Espejo and San José (Figure 6-1), as well as the prospects and development projects of Cerro Negro, Lomada de Leiva and La Josefina.

The principal host rock for silver and gold mineralization in the San José district is the Bajo Pobre Formation where veins are typically developed in competent andesite flows, and to a lesser extent, in volcaniclastic units.

6.2 Local and Property Geology

The Property is covered by the El Pluma 4769-I map sheet of the 1:250,000 Servicio Geológico Minero Argentino ("SEGEMAR") geological map series. A geological map covering the major vein deposits for the San José Property is illustrated in Figure 6-2.

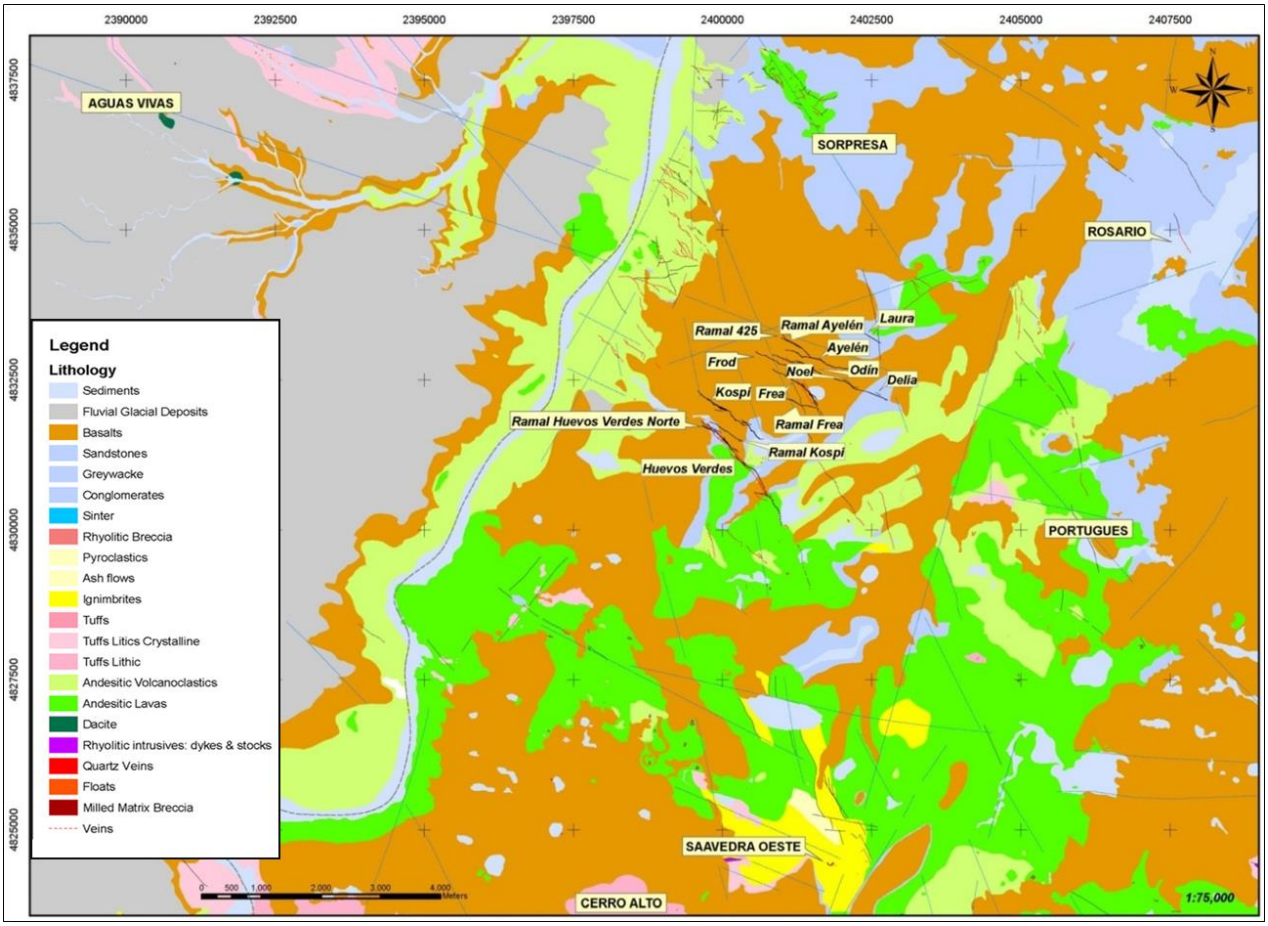

Figure 6-2 – Geology of the San José Property – Source: Hochschild (2019)

The stratigraphic column of the property, together with the lithostratigraphic units and descriptions, is shown in Figure 6-3.

ERA	PERIOD	LITHOSTRATIGRAPHIC UNIT		LITHOLOGY	MINERAL DEPOSIT	DESCRIPTION
CENOZOIC	QUATERNARY	QUATERNARY DEPOSITS				Unconsolidated till deposited in a glacial environment.
	TERTIARY	PLATEAU BASALTS				Basalts deposited in two volcanic episodes.
MESOZOIC	CRETACEOUS	CASTILLO FORMATION				Continental sedimentary rocks.
	JURASSIC	BAHIA LAURA GROUP	LA MATILDE FORMATION			This formation is mainly comprised by volcanoclasitc rocks.
			CHON AIKE FORMATION			This unit consits of pyroclastic rocks and ignimbrites
		BAJO POBRE FORMATION			HUEVOS VERDES FREA KOSPI	The formation consists of a lower andesite volcanoclastic unit and an upper andesite lava flow. The latter is massive w/ columnar jointing.

Figure 6-3 – San José Property Stratigraphic Column

6.2.1 Bajo Pobre Formation (Upper Jurassic)

The Jurassic Bajo Pobre Formation at around 145-150 Ma is the lowermost stratigraphic unit on the San José Property and is assumed to underlie the entire area. It is the main host of Au and Ag mineralization at the Huevos Verdes, Frea, Kospi and all other vein deposits at San José as well as many regional prospects. The formation also hosts some of the mineralization at Saavedra West Zone.

The formation comprises a lower andesite volcaniclastic unit and an upper andesite lava flow and has a maximum thickness of 120 m. A dacitic, hornblende-megacrystic lava flow of restricted extent has been identified but its stratigraphic position within the formation is unknown.

An epiclastic environment is inferred for the andesitic volcaniclastic unit, supported by the chaotic change in facies. This unit is generally pervasively altered and commonly has at least a propylitic overprint. Age dating of the volcaniclastic and lava flows indicates a hiatus of around 5 Ma between the two volcanic events. The andesitic and dacitic lava flows discordantly overlie the volcaniclastics. The andesitic lava flow has a thickness of up to 50 m. These flows are massive, with columnar jointing and auto-breccia textures where weathering and hydrothermal alteration is concentrated.

6.2.2 Bahia Laura Group - Chon Aike and La Matilde Formations (Upper Jurassic)

The andesitic volcanics are discordantly overlain by volcanic rocks of the Bahia Laura Group. Subdivision of the Group into the Chon Aike and La Matilde Formations is not well defined on the Property, and in some earlier reports the formations have been grouped together and referred to as the Chon Aike Formation (Colquhoun et al. 2007) and this practice is adopted in the section below.

Previously, outcrops of the Chon Aike Formation were thought to be restricted to geologically mapped areas to the north of the Rio Pinturas valley and in the Saavedra West area. However, mapping of a widespread tuffaceous unit overlying the Bajo Pobre Formation by Dietrich et al. (2004), indicated that these rocks may belong to the tuffaceous facies of either the Chon Aike or La Matilde Formation.

The Saavedra West basin is interpreted to be a syn-volcanic graben, possibly a caldera, developed within the Bajo Pobre Formation and infilled by pyroclastics correlated with the La Matilde Formation. Pebble dykes are abundant within the graben, and ignimbrites that may be correlated with the Chon Aike Formation occur as dykes along one edge. In the Saavedra West area, the thickness of the Group is around 80 to 100 m, however at Huevos Verdes, La Sorpresa and Rio Pinturas the thickness is only 15 to 20 m. Pyroclastic rocks of the Chon Aike Formation are laterally extensive. Age dating of the ignimbrites within the Chon Aike Formation gives ages around 147-151 Ma, younger than the age of the volcaniclastic sequence but older than the andesitic flows of the Bajo Pobre Formation.

Where this Group is overlain by sedimentary rocks of the Cretaceous Castillo Formation, the upper contacts of the Chon Aike Formation are concordant. However, this contact is discordant with the overlying Tertiary flood basalts of the Alma Gaucha Formation.

6.2.3 Post-Jurassic Geology

Deposition of Cretaceous sedimentary rocks of the Castillo Formation are interpreted to be controlled by block faulting which created small, normal fault-controlled depressions. Thickness of the formation varies but is generally between 5 to 80 m and decreases towards the south. The formation is divided into three members, with the lowermost member redefined as a tuffaceous deposit belonging to the Chon Aike Formation.

The north-western part of the Deseado Massif is covered by an extensive area of Tertiary-aged basalts with at least two basaltic episodes recognised in the San José region. The Upper Oligocene Alma Gaucha Formation occurs as uniform flat-lying flood basalts up to 30 m that cover a significant portion of the Property. Recent basaltic flows from the Cerro Portuguese volcanic centre form lava flow channels that overlie the flood basalts.

Glacially derived, unconsolidated till deposits up to 50 m in thickness occur predominantly in the Rio Pinturas valley.

6.2.4 Structural Geology

The district surrounding San José is transected by two north-northeast striking major lineaments. The Rio Pinturas lineament follows the Rio Pinturas valley and is one of the main structural features of the Deseado Massif. This lineament can be traced for over 100 km. A second, sub-parallel lineament is located 2 km east of the Rio Pinturas lineament.

The main structural trend of fault and vein systems on the Property is west-northwest to north-northwest. Less prominent are east-striking faults and veins and those north to northeast striking.

The vein systems at Huevos Verdes, and possibly also those at Frea, developed along north-northwest striking (average orientation of 325°/65 NE) sinistral strike-slip faults that were reactivated during Triassic rifting. The Huevos Verdes vein system is known to be composed of three main segments along strike.

Variations of vein orientation in bends and jogs along, and in between, sub-parallel sinistral faults control vein width and mineralization style.

Sinistral shearing along the north-northeast striking lineaments such as Rio Pinturas may have resulted in overall extension within the bounding blocks that host the San José mineralization, facilitating formation of structural openings along re-activated faults of favourable north-northwest strike.

Further details on the structural geology of the Property and its relation to mineralization are outlined in Section 6.1.2 of this Technical Report Summary.

Alteration

Alteration is typically a low sulphidation (“LS”) epithermal with silicification accompanying all of the veins and fractures and occurring as a narrow alteration halo, generally surrounded by an extensive zone of intermediate argillic mixed with phyllic alteration. Strong argillic alteration is interpreted to be a supergene overprint of the propylitic halo with disseminated pyrite.

6.3 Mineralization

Mineralization in the vicinity of the Property occurs as LS epithermal quartz veins, breccias and stockwork systems accompanying normal-sinistral faults striking 330° to 340° and conjugate dextral faults. Most of the known mineralization at the Property is hosted by the Jurassic Bajo Pobre and Chon Aike formations.

6.3.1 Veins and Vein Systems

Regional exploration has identified numerous vein targets, of which five, Huevos Verdes, Frea, Kospi, Ayelén and Odin have been extensively explored by surface diamond drilling and subsequently mined underground.

After reviewing the various drilling programs, Colquhoun et al. (2007) concluded the Frea and Kospi Veins were the most significant zones in terms of grade and tonnage. The mineralized Frea has been traced over a 1,200 m strike length and to depths of up to 250 m, with an average width of up to 2.5 m (Colquhoun et al. 2007, Minera Andes News Release, September 2, 2008). The Kospi Vein has been traced for over 1,300 m strike length (Mach and Elliott 2009) and to depths of up to 230 m, with an average width of approximately 3 m.

Major vein systems and exploration targets on the San José Property are discussed in detail below and illustrated in Figure 6-2.

Huevos Verdes

The Huevos Verdes vein system is one of the most important targets on the Property consisting of three to four discontinuous zones: Huevos Verdes Norte (“HVN”), Huevos Verdes Sur (“HVS”), Huevos Verdes Centro (“HVC”) and Huevos Verdes Ramal (“HVR”). The system is comprised of an array of sub-parallel veins striking 325° with dips ranging between 45° and 75° to the northeast that can be traced almost 2,000 m along strike. Mineralization is hosted by the Jurassic Bajo Pobre Formation, close to the contact of andesitic lava flows with underlying volcaniclastics.

The veins pinch and swell and have numerous bends and jogs. Several sub-parallel veins and splays off the main vein have been identified. The width of the vein zone is variable, ranging from less than 1 m to approximately 15 m. With the exception of limited outcrops of the HVS, the remainder of the veins are blind targets, below a cover of Tertiary basalt layers of up to 50 m thickness.

Within the HVN and HVS zones, the strongest mineralization is restricted to sub-vertical 50 to 80 m length ore shoots which can extend 50 to 200 m vertically. The location of these shoots may locally correspond to structural bends and jogs.

High-grade portions of the veins consist of banded to mottled quartz with irregular sulphide bands mineralized by fine-grained argentite and pyrite. Ruby silver and native silver are locally observed. The base metal content (zinc, lead, copper) of the veins and the amount of sphalerite, galena and chalcopyrite tends to increase with depth.

Huevos Verdes North (HVN)

The main HVN Vein is irregularly shaped and pinches and swells along the 400 m of strike. The vein width varies between 0.5 to 4 m and the dip ranges between 65° to 70° to the north-northeast. The vein and surrounding host rocks have associated strong illitic and argillic alteration with minor propylitic and potassium feldspar alteration.

The northern and southern extents of the vein have been closed off by drilling. At depth, mineralization is mostly closed off, except at the northern-most end of the zone. This zone is the weakest mineralized structure of the three Huevos Verdes zones. The strongest levels of gold and silver mineralization are restricted to two principal sub-vertical shoots, which are each approximately 50 to 80 m in length and can be traced approximately 150 to 200 m vertically.

Huevos Verdes South (HVS)

The HVS Vein has been traced for approximately 520 m along strike and ranges in width from 0.5 to 3 m. The dip of the vein ranges from 42° to 75° to the north-northeast and the strike varies from 100° to 190°. The change in orientation may explain the better mineralization and higher gold and silver grades at HVS compared to the HVN Vein. Four main sub-vertical shoots, up to 80 m long horizontally and up to 200 m vertically appear to control the majority of the mineralization. Mineralization is open to the north-northwest, and, similar to the HVN, gold and silver grades are strongest in the uppermost parts of the vein and appear to decrease with depth.

Huevos Verdes Central (HVC)

The HVC Vein has been traced approximately 400 m along strike and ranges in width between 0.5 to 5.0 m. The dip of the vein ranges from 70° to 75° to the north-northeast. The strongest mineralization is restricted to a gently plunging ore shoot 40 to 70 m in width. The shoot has been traced for approximately 300 m and remains open at depth.

Huevos Verdes Ramal (HVR)

The HVR Vein has been traced approximately 200 m along an east-west strike and ranges in width from 1 to 3 m. The vein is located between the HVC and HVS and has been traced vertically for 250 m.

Frea Vein

The Frea Vein is hosted in Jurassic volcanics and is controlled by northwest trending faults. The vein is a blind target below Cretaceous sediments and Tertiary basalts, discovered in 2003 as a result of test drilling an IP/resistivity target. The vein has been traced approximately 1,200 m along its northwest-trending strike and vertically to 200 m. The width of the vein varies from 0.5 to 7 m and dips at approximately 52° to the northeast. The vein remains open in all directions except the northwest extension, which is closed off by drilling.

Kospi Vein

The Kospi Vein is also hosted by Jurassic volcanics and is controlled by northwest trending faults, however, the vein dips to the southwest at about 70°. Kospi is also a blind target beneath Cretaceous and Tertiary cover rocks, discovered in 2005 as a result of drilling an IP/resistivity target. The vein has been traced for approximately 1,300 m along its northwest strike at 308° and vertically to 230 m. The thickness of the vein ranges from 0.25 to 9.5 m. The vein remains open to the southeast but is closed off by drilling in its northwest extent.

Odín and Ayelén Veins

The Odín and Ayelén Veins are the two most north-easterly northwest-striking sub-parallel systems that have been drilled. As a result of the 2008 drilling program, Odín has been traced approximately 1.6 km along strike and Ayelén 1.2 km along strike, with both dipping to the southwest (Minera Andes News Releases, September 2, 2008, and January 9, 2009). Mach and Elliott (2009) reported an extension to these veins of 1.9 km for Odín and 1.6 km for Ayelén. Both of these vein systems were discovered by test drilling blind geophysical targets. The Odín Vein remains open to the west along strike and at depth where it has been tested to 200 m.

Luli and Susana Veins

The Luli and Susana veins are part of an E-W trending vein system that has an orientation different from the typical northwest trend of all other veins at San José. This system does not outcrop. The Luli Vein has an approximate strike length of 1,300 m and the Susana Vein has an approximate strike length of 1,200 m.

Micaela Vein

The Micaela Vein has been traced approximately 1,000 m along an east-west strike and ranges in width from 1 to 4 m. The vein has been traced vertically for approximately 200 m.

Antonella E-W Vein

This structure was identified by drilling. The contacts are well defined and feature brechia textures with pulses of cryptocrystalline quartz and grey with black sulphides and fine pyrite. There are also brecchia pulses with a crystalline quartz matrix with coarse pyrite and possibly adularia crystals with andesite fragments; quartz with coloform texture and fractures and cavities filled with white and green clays were also observed in certain areas. The azimuth varies between 95°-115°, and the dip between 75°-55° north. The average width was 1.7 m with average grades of 5.5 g/t Au and 500 g/t Ag.

Ramal Ayelén Vein

The Ramal Ayelén Vein has irregular, poorly defined contacts, generally displays a breccia texture, the matrix is composed of white and gray quartz, with subhedral quartz fragments and andesite fragments with pervasive argillic alteration and strong oxidation. Traces of black sulphides are observed in white quartz and oxidation also invades the siliceous matrix, which obscures gold and silver mineralization. Fractures are partly filled with white clays and stained by oxides. The vein has an average width of 1 m and average grades of 9 g/t Au and 750 g/t Ag. The azimuth and dip in general are 124°/70° to the southwest.

Perla Vein

The Perla Vein has well defined contacts, with white quartz pulses with a lattice texture, pulses with brecciated texture, with a white and gray quartz matrix with black sulphides and disseminated fine pyrite, and subhedral andesite fragments. White and green clays are observed in fractures and cavities. The vein has an average width of 0.8 m and an average grade of 4.5 g/t Au and 550 g/t Ag. The azimuth and general dip are 121°/75° northeast.

Huevos Verde Norte – Ramal C Vein

The Huevos Verde Norte – Ramal C Vein has an irregular structure, comprised of a gray quartz, and features brecciated texture with fragments of andesite rock and quartz with pyrite, black sulphides, and iron oxides (goethite – hematite) with patches of green and white clays. The clays and oxides are also fracture filling. The vein has an average width of 1.5 m and average grades of 7 g/t Au and 450 g/t Ag and an azimuth of 310° and dip of 80° northeast.

Maia Vein

The Maia Vein was identified by drilling. The vein has well defined contacts, in some areas the contacts are irregular and accompanied by highly fractured andesite. It is composed of white to cryptocrystalline quartz and amethyst with banded to colloform texture. The mineralization features fine pyrite and disseminated black sulphides in banded quartz. The vein is accompanied, in parts, by green clays in cavities and fractures where iron oxide is also usually present.

The vein has an average width of 1.5 m with an average grade of 5.5 g/t Au and 200 g/t Ag; with an azimuth and dip of 110°/80° southwest.

6.3.2 Structural Controls on Mineralization

The most important control on mineralization at San José is structure, which governs the formation and opening of faults and fractures, and the creation of conduits during the mineralizing events.

Huevos Verdes veins have the best developed ore shoots with respect to grade and width at strike directions of 320° to 305°. Vein segments with strikes greater than 325° usually lack significant mineralization and are characterised by brecciation and fault gouge. These findings led to the conclusion that the Huevos Verdes vein system developed in a sinistral strike-slip setting. Counter-clockwise bending of a sinistral strike-slip fault creates a dilational setting, whereas clockwise bending creates a compressional environment. Therefore, open space will preferentially form in counter-clockwise bends whereas increased tectonic friction with fault gouge and brecciation will develop preferentially in a compressional setting along clockwise-rotated bends. With respect to the Huevos Verdes system, the best mineralization will generally occur where structures bend counter clockwise from the average strike (less than 325°). Mineralized shoots would be expected to occur along the vein system where vein strike bends less than 325°.

Early north-northwest striking normal faults were formed in the region in response to Permian-Triassic rifting (Dietrich et al. 2005). Dextral east-west to west-northwest-trending wrench faulting associated with mineralization in the Deseado Massif occurred at 150 to 125 Ma. The Huevos Verdes vein system

formed as sinistral extension fissures within this dextral wrench fault system. The Permian-Triassic north-northwest trending faults were reactivated and became hosts to mineralization.

The Huevos Verdes system is discontinuous and displays counter clockwise bending at the tips of mineralized sections. This geometry is interpreted to reflect formation of mineralized tension fissures with sinistral strike-slip displacement in between dextral master wrench faults. The bending indicates proximity to dextral east-west trending master faults. Dextral wrench faulting is thought to have occurred during mid- to upper-Jurassic times in the region and related to the early opening of the southern Atlantic. Outcrops of east-west striking, weakly-to-unmineralized quartz veins are exposed in the intermittent segments between the three zones of the Huevos Verdes system. East-west trending lineaments are rare but are present in the northwestern Deseado Massif.

Sinistral, north-northeast striking lineaments on the San José Property, illustrated in Figure 6-4, limit the known occurrences of the north-northwest striking mineralized veins such as Huevos Verdes. The Rio Pinturas and the San José lineaments form a prospective corridor, with no known mineralization either east or west of this corridor.

Litho-stratigraphy may also play an important role in governing mineralization where certain litho-stratigraphic horizons favoured the opening of fractures. Mapping in the Pluma Zone noted that the fracturing of rocks is far more intense in andesitic lava flows than in underlying volcaniclastic rocks. Fracture-controlled wall rock alteration and mineralization is more pronounced in the lava flows. Host lithology may be a factor controlling the depth of mineralized shoots.

The structure at the Saavedra / Saavedra West (Discovery Hill) deposits has been interpreted to be a syn-volcanic graben, possibly a caldera, that developed within the Bajo Pobre Formation and infilled with sedimentary rocks of the La Matilde Formation (Colquhoun et al. 2007). A series of N-NW trending steeply dipping gold-silver quartz veins and siliceous structures occur at Discovery Hill. These veins may have been emplaced along graben-bounding faults. This trend is sub-parallel to that at Huevos Verdes and IP/resistivity surveys have traced this trend from just northeast of Discovery Hill to a point that occurs 100 m directly southwest of the HVS Zone. A cross-section of the Horst and Graben structure at San José is presented in Figure 6-5.

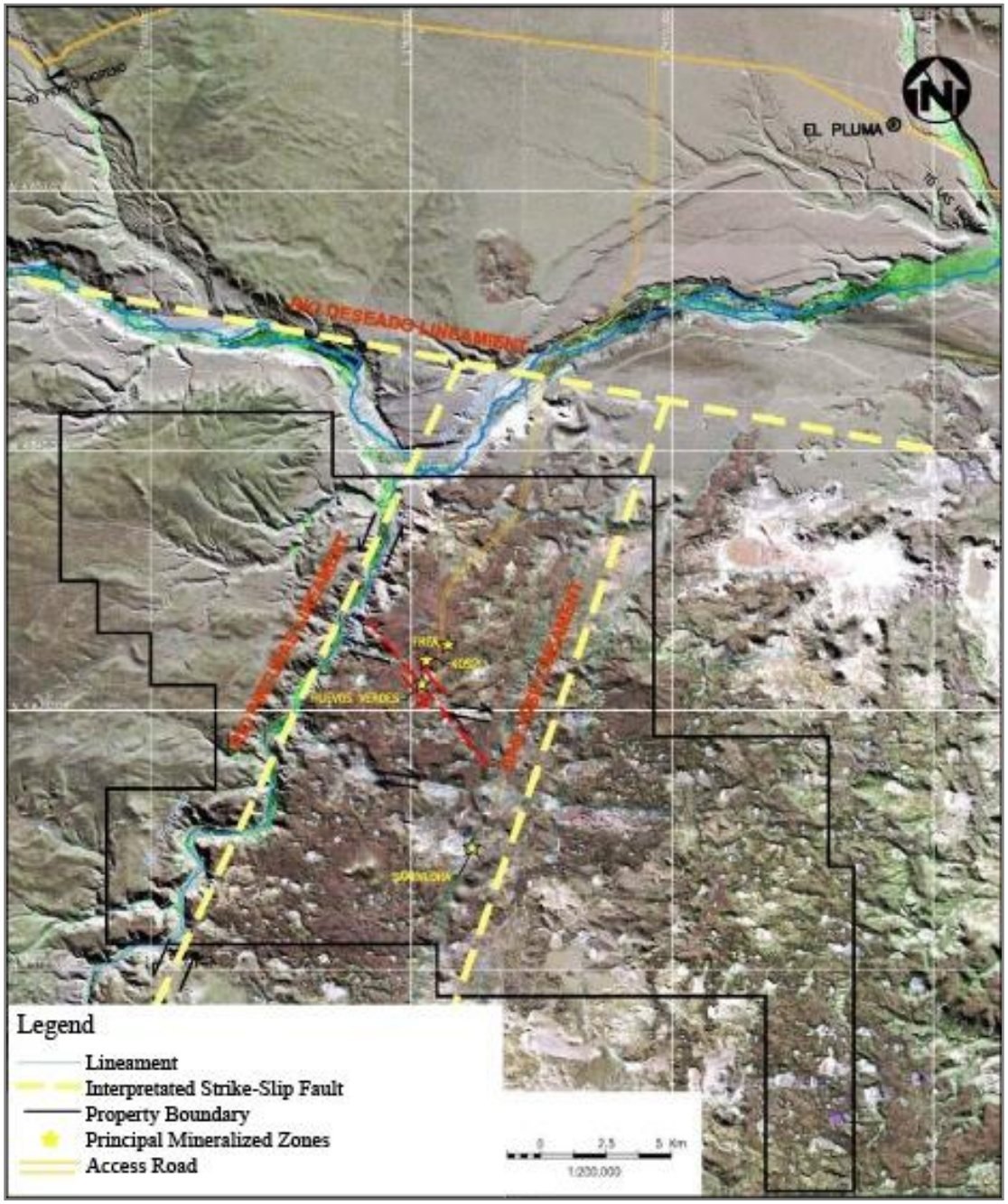

Figure 6-4 – Structural Lineaments on the San José Property – Source: Hochschild (2019)

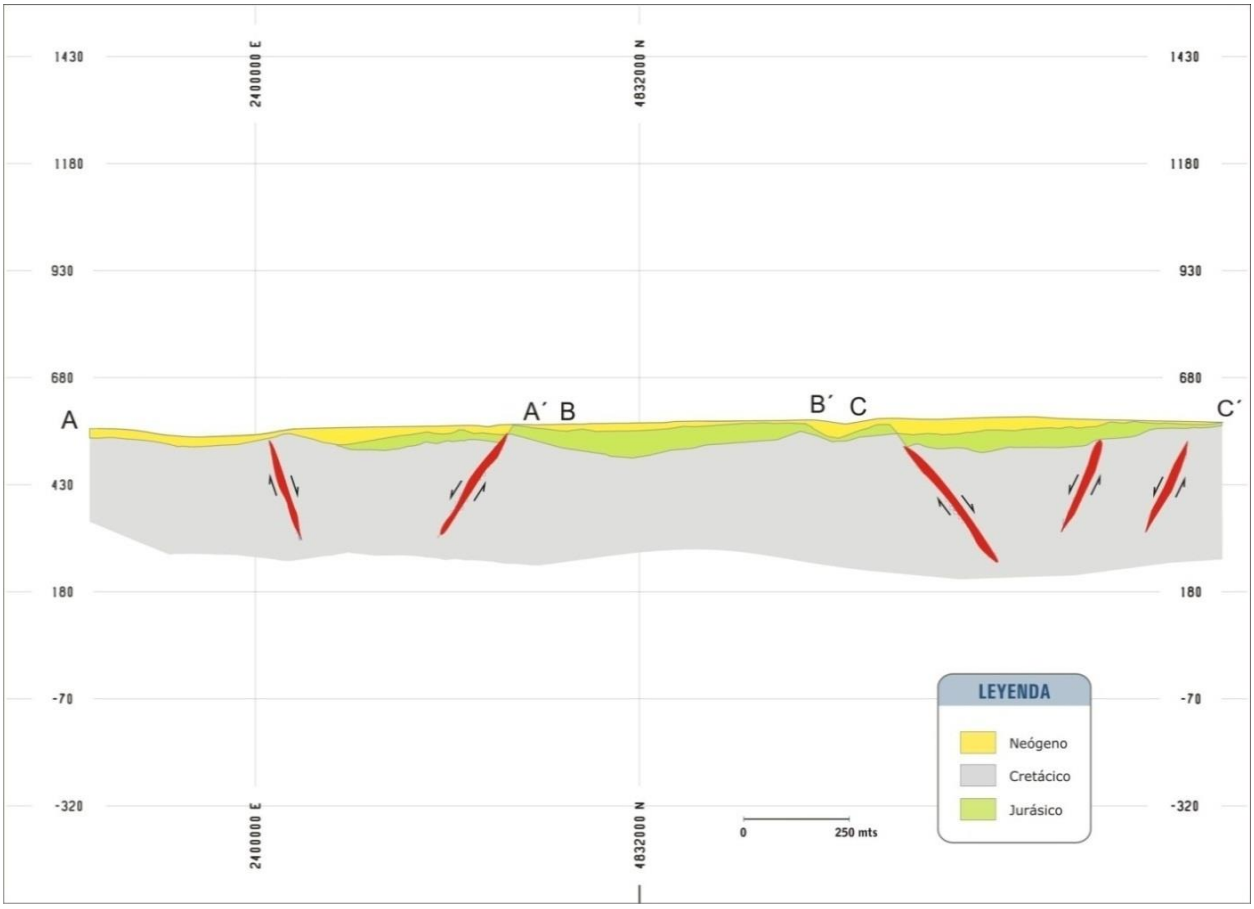

Figure 6-5 – Cross-Section Showing the Horst and Graben Structure at San José – Source: Hochschild (2019)

6.1 Deposit Types

The San José Deposit is considered to be a typical low sulphidation silver-gold epithermal deposit.

6.1.1 Epithermal Au-Ag Deposit Classification Systems

Epithermal gold-silver deposits form in near-surface environments, from hydrothermal systems at shallow crustal levels (<1 km) or low temperatures. They are commonly associated with centres of magmatism and volcanism but form also in shallow marine settings. Hot-spring deposits and both liquid- and vapour-dominated geothermal systems are commonly associated with epithermal deposits. The deposits contain precious metals deposited by the mixing of upwelling mineralized fluids which contain a magmatic component, with oxidizing ground water.

Much of the gangue mineralogy comprising quartz, adularia, and carbonate forms in response to the boiling of dominantly meteoric fluids upon periodic, structurally controlled pressure release, and so may develop the characteristic banded fissure vein ores.

Historically, epithermal deposits have been exploited for a wide variety of metals and minerals, however, many of the more economically significant deposits are mined for their precious metals.

Epithermal Au-Ag Deposit Sub-Types

Epithermal deposits are primarily distinguished using criteria of varying gangue and ore mineralogy, deposited by the interaction of host rocks and groundwater with different ore fluids. The deposits are commonly considered to comprise one of two sub-types: low sulphidation ("LS") and high sulphidation ("HS") (Figure 6-6). Each sub-type is denoted by characteristic alteration mineral assemblages, occurrences, textures, and in some cases, characteristic suites of associated geochemical elements.

LS epithermal deposits are distinguished from HS primarily by their sulphide mineralogy. Many LS veins are well banded, and each band represents a separate episode of hydrothermal mineral deposition. LS deposits develop from dilute near-neutral pH fluids and can be subdivided further into two groups: those which display mineralogies derived dominantly from magmatic source rocks (arc LS) and others with mineralogies dominated from circulating geothermal fluid sources (rift LS).

LS epithermal deposits form in high-level hydrothermal systems from depths of less than 1 km to surficial hot springs and are associated with regional-scale fracture systems related to grabens, calderas, flow-dome complexes and rarely, maar diatremes (Panteleyev 1996). Extensional structures in volcanic fields such as normal faults, fault splays, ladder veins etc. are common as is locally graben or caldera-fill clastic rocks. High level (sub-volcanic) stocks and/or dykes and pebble breccia diatremes occur in some areas. High grade ores are commonly found in dilational zones in faults at flexures, splays and in cymoid loops.

Styles of LS gold-silver are distinguished according to mineralogy and relation to intrusion source rocks and influence precious metal grade, silver to gold ratio, metallurgy, and gold distribution. The following subsets of LS have been distinguished by Corbett (2007): quartz-sulfide gold ± copper; carbonate-base metal gold; polymetallic silver-gold; epithermal quartz gold-silver; chalcedony-ginguro epithermal gold-silver.

Intermediate sulphidation ("IS") sub-types are considered to be a subset of LS types. In some epithermal deposits, notably those of IS sub-type, base metal sulphides may comprise a significant ore constituent.

HS systems vary with depth and permeability control and are distinguished from several styles of barren acid alteration. HS systems develop due to the reaction of hot acidic magmatic fluids with the host rocks, producing characteristic zoned alteration and later sulfide and gold + copper + silver deposition. Ore

systems display permeability controls governed by lithology, structure and breccias and changes in wall rock alteration and ore mineralogy with depth of formation.

Taylor (2007) subdivides based on LS and HS, which is further subdivided into those hosted by volcanic and plutonic rocks and those that are hosted in sedimentary and mixed host rocks.

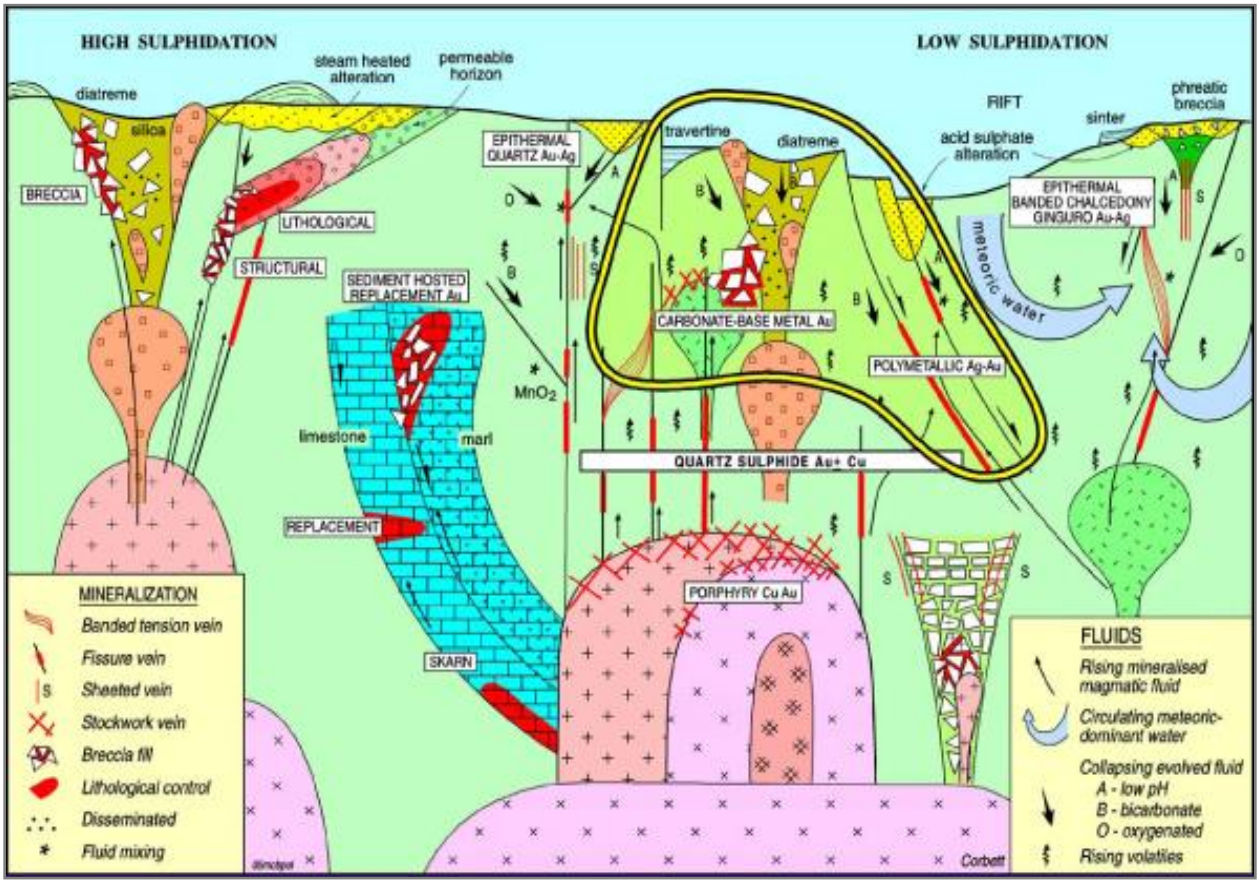

Figure 6-6 – Low Sulphidation And High Sulphidation Epithermal Deposit Model – Source: Corbett (2007)

6.1.2 South American Epithermal Ag-Au Deposits

The polymetallic silver-gold vein systems of South America are considered the Andean equivalent of the southwest Pacific carbonate-base metal gold epithermal systems. These systems typically occur with the following sulphides: pyrite > sphalerite > galena > chalcopyrite with electrum, silver sulphosalts (tennantite-tetrahedrite, argentite). The deposits are mainly quartz ± calcite ± adularia ± illite assemblage of LS and IS sulphidation. Fernández et al. (2008) divided the Patagonian deposits based on metallic association into:

a) gold-silver and silver > gold;

b) polymetallic with silver-gold or only silver; and,

c) complex polymetallic mineralization with silver-gold. These deposits mostly form in tectonically formed veins.

The Deseado Massif in Argentina, a large bimodal igneous province, is host to numerous occurrences of silver-rich and polymetallic epithermal mineralization that includes the deposits of the San José Mine (Figure 6-7). LS epithermal silver-gold and polymetallic deposits accompanied Jurassic magmatism and deformation in the Deseado Massif. Limited K-Ar and U-Pb ages on some of the larger deposits in the Deseado Massif tentatively confirm a Late Jurassic age of mineralization, slightly younger than the Jurassic volcanic host rocks (Fernández et al. 2008).

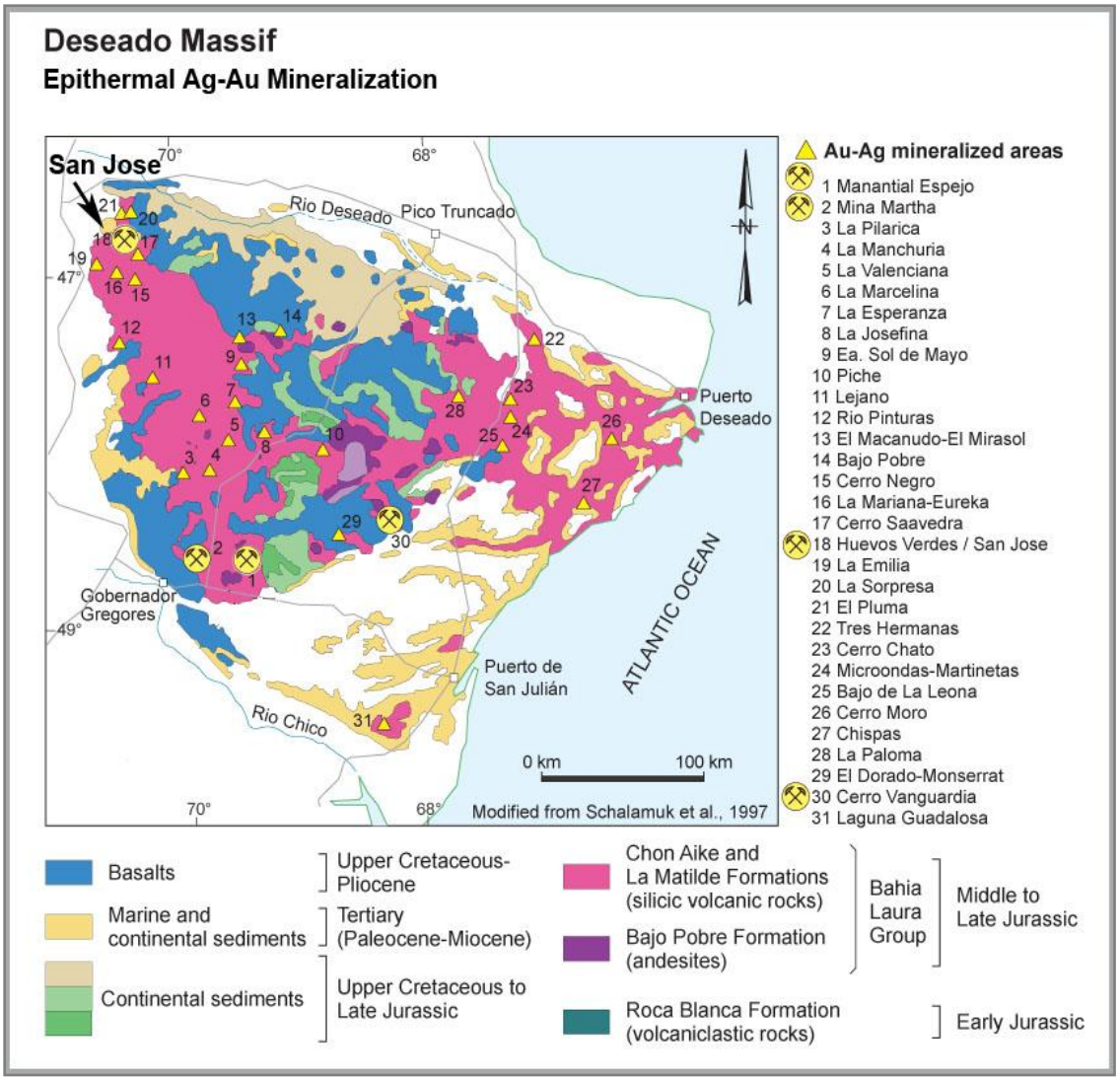

Figure 6-7 – Epithermal Gold-Silver Deposits of the Deseado Massif, Argentina – Modified from Wallace et al. (2006)

7 EXPLORATION

7.1 Surface Sampling

Information on exploration on the Property prior to 2018 is detailed in Table 7-1 and Table 7-2. The only exploration work conducted in 2018 and 2019 was drilling, which is summarized in Section 7.6 of this Technical Report.

Table 7-1 – Summary of Exploration on the San José Property, 1997-2013

Year	Operators	Description
1997 to 2001	Minera Andes	5-year program consisting of prospecting; soil sampling; stream sediment sampling; mapping and sampling; trenching and channel chip sampling. IP/Resistivity (74 line km) CSAMT (42 line km) and magnetic surveys (186 line km) by Quantec Geofisica Argentina S.A. RC drilling (85 holes) and diamond drilling (3 holes); alteration studies (Portable Infrared Mineral Analyzer); metallurgical studies; discovery of Saavedra West and Huevos Verdes Zones, plus numerous prospects.
2001 to 2003	MSC	JV company created between Minera Andes and Hochschild; 2-year program consisting of surveying; IP/Resistivity (45 line km), and Real Section IP (20.25 line km) surveys by Quantec Geofisica Argentina S.A.; diamond drilling (30 holes); further definition of the Huevos Verdes Zone; Mineral Resource Estimates at Huevos Verdes and Saavedra West Vein and Breccia Zones.
2003 to 2004	MSC	Hochschild vested at 51% ownership; 2-year program consisting of underground development at HVN and HVS; surface rights land purchasing; road construction; diamond drilling (39 holes); program further outlined the Huevos Verdes Zone and resulted in the discovery of the Frea Zone.
2004 to 2005	MSC	Definition-style diamond drilling (144 holes). Initiation of Feasibility Study including Mineral Resource and Mineral Reserve Estimates at Huevos Verdes and Frea managed by MTB Project Management Professionals Inc. of Denver, USA, includes mine design, capital and operating cost estimation, metallurgical, geotechnical environmental EIA and social studies by Vector Argentina, AMEC retained to do Mineral Resource audit; continued underground development on 480 and 430 levels at HVN and HVS; IP/Resistivity (215 line km) surveys; additional 38 diamond drill holes to test regional targets.
October 2005	MSC	Completion of Feasibility Study in October 2005, decision to proceed to production was made on March 28, 2006.
November 2005 to June 2006	MSC	Phase 1 and Phase 2 drilling at Kospi Vein (128 holes); EIA approved by DPM on March 1, 2006; continued underground development (ramp construction and drifting at HVS and Frea); Granting of Environmental Permit, production decision (March 28, 2006); change of metallurgical processing and recovery methodology to a Gekko system; supporting metallurgical testwork; mine construction, permitting.
July 2006 to September 2007	MSC	On-going plant and infrastructure construction, continued mine development, Mineral Resource/Mineral Reserve Estimate (Huevos Verdes, Frea, Kospi), continued metallurgical testwork, official mine opening (June 26, 2007), continued drilling of regional prospects.
September 2007	MSC	Preparation of a Technical Report by AMEC, including a Mineral Resource and Mineral Reserve Estimate with effective date of December 31, 2006

Year	Operators	Description
October 2010 to December 2010	MSC	Drilling focused on extending Micaela, Luili; Susana, Rml and HVSur veins in order to identify new areas of mineralization and extensions. Drilling was also undertaken at the Saavedra Oeste prospects to identify new veins and mineralization. Ground magnetic survey conducted over 342 km. 4 lines of IP totalling 19.45 km conducted on North block. 19 lines of IP totalling 99 km conducted on South block.
January 2011 to December 2011	MSC	Drilling focused on the Pilar, Luli, Antonella, Rml 861 A, Dalila and Sanson veins, in order to increase Mineral Resources and infill drilling on known Veins: Micaela, Sofia, Luli, HVN A, Ramal A, Ramal Ayelen and Susana. This drilling identified new exploration targets, Pluma and Linea 4.
January 2012 to December 2012	MSC	Drilling focused on increasing Mineral Resources on the Pilar Veins while new exploration targets were identified in the Emilia, Estela, and Esperanza veins. 3 lines of IP/resistivity totalling 23 km were conducted and 3 lines of pole-dipole IP totalling 20 km were conducted on the Property.
January 2013 to December 2013	MSC	Drilling focused on increasing Mineral Resources on the Esperanza, Estela, Kospi SE, Kospi SW, Kospi, Kospi Ramal X, Ramal Frea, Juanita, Saavedra Pit veins while new exploration targets were identified in the Juanita, Zona 2, 290+Emilia, Pablo G, Kospi SE, and Saavedra Southwest veins.

7.2 Logging Historical RC Cuttings

From 1998 to 2017, 2,586 Reverse Circulation (RC) and diamond drill exploration surface and underground drill holes totalling 506,979 m were drilled on the Property. A summary of the historic drill programs is presented in Table 7-2.

Table 7-2 – Drilling Program on the San José Property, 1998-2017

DRILLING PROGRAM ON THE SAN JOSÉ PROPERTY, 1998-2017				
Year	No. of Drill Holes	Length (m)	Hole Type	Company
1998	38	3956	RC	Minera Andes
1999	21	1648	RC	Minera Andes
2000	29	3698	RC & Core	Minera Andes
2001	19	3127	Core	MSC
2002	1	81	Core	MSC
2003	6	777	Core	MSC
2004	105	12423	RC & Core	MSC
2005	454	56979	Core	MSC
2006	137	23655	Core	MSC
2007	127	29821	Core	MSC
2008	85	19633	Core	MSC
2009	112	24617	Core	MSC
2010	257	54041	Core	MSC
2011	239	61560	Core	MSC
2012	471	97922	Core	MSC

Year	No. of Drill Holes	Length (m)	Hole Type	Company
2013	96	24248	Core	MSC
2014	56	16721	Core	MSC
2015	117	22192	Core	MSC
2016	88	21583	Core	MSC
2017	128	28300	Core	MSC
Total	**2,586**	**506,979**		

7.3 Aeromagnetic and Aero-Radiometric Survey

No aeromagnetic or aero-radiometric surveys were conducted at San José as it is currently a producing mine.

7.4 Stream Sediment Survey

Stream sediment surveys were conducted between 1997 and 2001 which were followed by mapping, sampling, trenching and channel chip sampling. IP/Resistivity (74 line km) CSAMT (42 line km) and magnetic surveys (186 line km) were conducted by Quantec Geofisica Argentina S.A. RC drilling (85 holes), diamond drilling (3 holes), alteration studies (Portable Infrared Mineral Analyzer) and metallurgical studies lead to the discovery of Saavedra West and Huevos Verdes Zones, plus numerous other prospects.

7.4.1 Hydrogeology

The San Jose hydrogeological system of the region is made up of two hydrogeological units:

1.) Free aquifer: formed by a series of interconnected fractures with an average electrical conductivity of 250 µS / cm that reacts directly to the zonal rainfall regime and whose recharge zone is found in the tertiary basalt plateaus and in the quaternary psephites of glacial fluvial origin. By means of a slug test in the S1 piezometer in 2017, whose hydrogeological unit is characterized by a free aquifer lodged in fractures in the tertiary basalts, hydraulic conductivities of 0.14 m / day have been measured, assimilable to 14% drainable porosity.

The pumping test that was carried out in the MSCSJ TC-3 (Tres Colores) water well in February 2017, which produces water from a hydrothermal quartz seam lodged in the andesites of the Fm. Bajo Pobre, similar to the veins inside the mine, resulted in a hydraulic conductivity of 0.34 m / day, evident proof of the increase in this parameter due to phenomena related to its genesis.

In order to know the flow directions of the free aquifer, a piezometric map was made, based on the topographic information provided by MSC and the measurement of the static levels in the different piezometers of the San José Mine.

The predominant flow direction, obtained from the normal to the piezometric curves, is towards the ENE, where the Estancia San José hull is located, and springs emerge.

On the ground floor where Tailings Dam No. 2 is located, the piezometric flow is centripetal and tends to flow towards this topographic depression. In the western sector of it, springs emerge.

2.) Confined aquifer: housed in fractures in Jurassic rocks with electrical conductivities greater than 1000 µS / cm. The pumping tests carried out in it yielded hydraulic conductivities of the order of 8E-03 m/day. The confined aquifer does so by following the regional water gradient towards the Pinturas River and is the hydrogeological unit where water is extracted in the mine galleries.

Groundwater inflow is estimated to be between 8 and 20 L/s. Mine floor gradients are constructed to assist the natural flow of water to the sumps. Mine water is pumped to the main underground sumps using small 7 hp Flygt submersible pumps. Grindex 50 hp submersible pumps are used to pump the water to the surface settling ponds. Clean water is pumped directly from the settling pond to the processing plant and the main water reservoir, or it is returned to the Mine to be used as mine process water (for drilling, washing etc.).

7.5 Gravity Surveys

No gravity surveys were conducted at San José as it is currently a producing mine

7.6 Drilling

7.6.1 Underground Channel Samples

Channel sampling is undertaken with a pneumatic drill in order to obtain representative samples with consistent fragment and sample size. The minimum sample length is 0.3 m.

Channel lines are painted on the drift/stope back and surveyed at one extremity as a collar. Azimuth and from/to intervals are entered in the database and the channels are recorded as mini drill holes. Sample

lines extend across the entire drift/stope back to include wall rock. Samples are collected from the adjacent wall rock to provide information for dilution analysis as well as identifying possible new zones of mineralization that may not be visually evident.

Geological contacts are painted on the face of new development headings and photographed prior to sampling to aid in the calculation of more accurate weighted-average silver-gold grade. The total mass of all samples taken across a face, sampled perpendicular to mineralization, is no less than 20 kg. The average silver-gold content of 3 m of new development is calculated by using information from two consecutive face samples (i.e. 40 kg of sample).

Waste channel samples are taken a reasonable distance apart from mineralized contacts where a high silver-gold grade may be encountered. Material from the waste channels is used to prepare blank material.

Underground channel samples are analyzed at the onsite laboratory. Assay repeatability for gold and silver metals is generally poor due to variability in wall rock in adjacent area in channel samples.

7.6.2 Exploration Program 1998 – 2017

From 1998 to 2017, 2,586 reverse circulation and diamond drill exploration surface and underground drill holes totalling 506,979 m were completed on the Property.

7.6.3 Exploration Program 2018 – 2020

During 2018, MSC completed 15,700.7 m of exploration drilling in 54 holes, 19,596.2 m of infill drilling and mine development drilling in 111 drill holes and 6,035.8 m of Mineral Resource drilling in 32 holes.

In 2019, MSC conducted drill programs for exploration and mine development purposes. Exploration drilling totalled 22,255.0 m in 73 holes and Mineral Resource definition drilling totalled 3,749.0 m in 12 holes. Development and infill drilling totalled 27,174.9 m in 183 holes.

In 2020 MSC completed 110 exploration holes totalling 24,874.5 m of drilling in 2020. Drilling was carried out on 31 different veins. Some exploration holes were conducted to test the extent of known veins such as Aguas Vivas, Ayelen, Emilia, Emily, Evangelina, Karina, Micaela W and others were advanced on new exploration targets such as Cindy, Erika, Isabel, Julia, Titan and Veta Betania. Positive results were obtained from several veins including Bx Horizontal, Cindy, Emily, Erika, Julia, Karina, Micaela W, and RML HVNX.

The principal targets that were tested by drilling during 2018 and 2019 were Aguas Vivas, Antonella EW, Brecha Saavedra, Corredor China, Guadalupe, Juanita NE, Karina, Kospi N, Lita, Luli Sur, Maia, Manteca,

Maura, Micaela, Pluma 19, Patria 19, Perla, Polimetalica I, Ramal Ayelen, Rml HCNC, Rubia Roma Nueva Ramona, Sulfuro, and Tornado–Huracán. Table 7-3 summarizes the 2018 drilling and Table 7-4 summarizes the 2019 drilling. 2018 significant intersections for exploration are presented in Table 7-5 and significant intercepts for Mineral Resource definition are presented in Table 7-6. Significant intersections for 2019 exploration drilling are presented in Table 7-7 and for 2020 in Table 7-8. Drill targets were identified and prioritized based on geological and alteration mapping, surface geochemical sampling, geophysical surveys (surface magnetics, resistivity, gradient and pole-dipole array induced polarization, CSAMT and structural modeling). The rock is generally very competent and drill core recoveries of greater than 90% were usually achieved.

A generalized plan view of the exploration holes drilled during 2018 and 2019 is presented in Figure 7-1. A plan view of the 2019 drilling is presented in Figure 7-2.

Aguas Vivas is a broad area located 10 km northwest from the San José Mine. Potential structures were identified after detailed review of the available geophysical imagery. The area is largely covered by quaternary material. Evidence of a low sulphidation epithermal system, with two main sectors was recognized, respectively characterized by different structural patterns and distinctive geochemical assemblages:

- Pb-Zn (+/- Ag-Cu) bearing, NNW trending veins (Polimetalica I – Sulfuro – Olivia).
- Au-Ag bearing, NW trending veins (Corredor China).

16 holes were drilled in 2018 to define the continuity of anomalies or examine intercepts reported in previous drilling programs. Almost all holes intercepted the target, and nine of them reported economic to sub-economic values. In 2019, 25 holes were performed at those targets. 14 holes were drilled at the Polimetálica I and Olivia Veins, which are approximately 40 to 80 m apart. Although in general, targeted structures were intercepted, just five holes reported economic values. A single hole was drilled in Corredor China which reported encouraging gold values.

Juanita NE is a 1 km long system of narrow quartz veins that has been tested by drilling between 300 to 370 masl. At surface, the target consists of quartz floats, sub-outcrops, and sparse outcrops of narrow quartz veining. The Saavedra Brecchia is associated with breccias emplaced in felsic tuffs. Seven holes were conducted on those targets and one of them reported economic grade mineralization. Both targets are located about 5 km to the south of the San José Mine.

Maia, Guadalupe and Sigmoide Odin are subparallel veins located near Odin SE. Five explorations holes and 32 Mineral Resource definition holes were drilled with favorable results. Mineral Resources added at this area were reported in August 2018.

Manteca is an east-west trending structure, located about 2.5 km southwest of the San José Mine. To date, four holes were drilled to test the structure at different elevations along strike, with results below expectations.

Pluma 19 is a 1 km long northwest trending vein located about 1 km northeast of the San José Mine. To date, four holes were drilled to test the structure, between 400 to 465 masl, with results below expectations.

Patria 19 is an area located 2 km northeast of the San José Mine complex. Three holes were drilled to test two main structures, Sigmoide Patria and Victoria Vein, between 400 to 450 masl. One of the holes intersected the vein with sub-economic values.

Tornado and Huracan are two areas that belong to Coeur d'Alene Mining Company. Two exploration drill holes were drilled with results below expectations.

Surface drilling was conducted with a crawler mounted Sandvik DE 710 drill rig and underground drilling was conducted with a Boart Longyear LM 75 model operated by Macizo del Deseado Perforaciones SA. Core diameter was HQ. Borehole surveys were completed using Reflex instruments and measurements were generally taken every 5 m. Collar locations were spotted using GPS with a Trimble Model R5 base station with a Trimble external radio model HTL 450H, and with a Trimble model R6 mobile station.

Table 7-3 – Summary of 2018 San José Drilling

Type	No. of Drill Holes	Total Metres (m)	Target
Exploration Drilling			
Resource Definition	32	6,036	Maia, Perla
Exploration	54	15,701	Aguas Vivas, Guadalupe, Juanite NE Manteca, Rml Ayelen, Pluma 19, Patria 19 Huracan, Tornado, Ext Antonella EW, Bx Saavedra
Near Mine	0	0	
Total	**86**	**21,737**	
Development Drilling			
Infill	83	11,698	Rml HVNC, Noel, Antonela, Rml Ayelen, Rml 483, Rml 425, Ayelen, Ext. Ayelen, Tensional EW, Kospi, Rml 425A, Marcia, Molle, 290, HVN, Odin, Perla, 861 Rml A, 861 Rml B, Sigmoide Luli, Micaela, Luli Sur
Development mine	28	7,899	Ayelen_Ext_SE, Tensional EW, Emilia, Perla, Sigmoide Luli, Molle, Antonella Az115, Ext Antonella EW, Kospi SE
Total	**111**	**19,596**	

Table 7-4 – Summary of 2019 San José Drilling

Type	No. of Drill Holes	Total Metres (m)	Target
Exploration Drilling			
Resource Definition	12	3,749	
Exploration	73	22,255	Aguas Vivas, Plum 19, Manteca Norte, Manteca Sur, Rubia, Antonella EW, Delfina, Kospi SE, Micaela, Micaela-Liz, Karina, Pluma, Sur HV, Ext. Ayelen, Marcia, Caro, Potencial, Taraz EW
Near Mine	0	0	
Total	**85**	**26,004**	
Development Drilling			
Infill	154	24,459	Tensional EW, 861 V, Micaela, Tensional Perla, Odin, Molle, Kospi, Rml HVND, Ext. Ayelen, Rml, Ayelen, Pilar, Sanson, Sigmoide Luli, Ayelen, HVN, Rml 425, Rml 581, 861 RmlB, Antonella, Marcia, Luli Sur, Rml Frea Tesnional EW, Delfina, Molle, Marcia, Luli Sur, Pilar
Development mine	29	2,716	Odin, Rml HVS, Scott 1, Micaela, Abril, Evangelina, Rml HVND, Rml Ayelen, Ext Ayelen, Kospi, Guileta, Pilar, Antonella SE
Total	**183**	**27,175**	

Table 7-5 – Significant Intercepts For 2018 Exploration Drill Holes

Significant Intercepts for 2018 Exploration Drill Holes									
Drill Hole ID	From (m)	To (m)	Intercept (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Vein
SJD-1703	134.20	135.30	1.10	1.19	4.65	0.00	0.01	0.003	Polimetálica II
SJD-1703	357.40	357.75	0.35	0.29	7.48	0.03	1,30	2.81	Polimetálica I
SJD-1704	276.08	277.47	1.39	0.53	31.78	0.26	2.45	1.61	Polimetalica I
SJD-1704	286.52	287.70	1.18	2.28	13.22	0.01	0.22	0.25	Polimetalica I
SJD-1704	296.80	297.40	0.60	3.40	13.70	0.01	1.01	0.61	Polimetalica I
SJD-1705	299.20	299.55	0.35	0.21	3.14	0.02	1.78	3.47	Nueva
SJD-1705	305.70	306.00	0.30	0.27	12.22	0.04	1.60	1.66	Nueva
SJD-1706	240.00	251.55	11.55	0.05	3.00	0.00	0.05	0.05	BH, Qz-Adularia
SJD-1706	278.30	281.50	3.20	0.02	2.03	0.00	0.01	0.20	Sulfuros
SJD-1706	316.50	318.30	1.80	0.01	3.65	0.00	0.02	0.01	Sulfuros
SJD-1707	289.30	290.55	1.25	0.11	1.97	0.01	0.10	0.28	Polimetalica I
SJD-1709	298.85	300.48	1.63	0.49	6.91	0.03	0.97	1.26	Polimetalica II
SJD-1709	506.90	507.25	0.35	1.32	50.10	0.00	0.05	0.03	not known
SJD-1710	218.40	220.50	2.10	0.72	10.12	0.02	0.99	1.44	Polimetalica II
SJD-1713	155.90	156.55	0.65	1.64	126.36	0.03	0.21	0.04	Ramal POLI I NE
SJD-1713	284.45	284.85	0.40	1.25	3.55	0.02	0.47	0.32	POLI 1 NE
SJD-1716	157.20	157.50	0.30	0.08	2.50	0.01	0.00	0.01	Brecha Sulfuros
SJD-1720	158.15	158.55	0.40	4.80	14.64	0.00	0.02	0.01	Polimetalica I
SJD-1723	258.90	260.50	1.60	2.77	3.67	-	0.03	0.01	Juanita NE
SJD-1724	321.35	322.10	0.75	0.41	2.50	-	0.17	0.01	Juanita NE
SJD-1726	220.85	221.15	0.30	4.20	42.27	-	-	-	Juanita NE
SJD-1727	143.80	144.40	0.60	0.40	7.56	-	-	-	Juanita NE
SJD-1731	195.85	197.40	1.55	2.10	4.53	-	-	-	Guadalupe
SJD-1737	52.17	54.60	2.43	6.78	778.19	-	-	-	Sig. Odin sur
SJD-1737	79.00	80.50	1.50	5.38	525.17	-	-	-	Guadalupe
SJD-1740	175.05	177.60	2.55	5.76	74.42	-	-	-	Odin
SJD-1740	215.35	216.75	1.40	1.17	20.32	-	-	-	Guadalupe
SJD-1748	87.30	88.55	1.25	0.18	4.90	-	-	-	Maia
SJD-1751	67.20	67.50	0.30	3.10	26.55	-	-	-	Maia
SJD-1753	34.10	34.55	0.45	3.67	48.05	-	-	-	Maia
SJD-1756	164.45	164.90	0.45	1.80	211.17	-	-	-	Beto
SJD-1802	130.75	133.60	2.85	8.22	372.51	-	-	-	Lita
SJD-1805	138.20	141.15	2.55	0.60	104.87	-	-	-	Lita
SJD-1805	146.05	147.95	1.90	1.39	126.76	-	-	-	Ayelén
SJD-1823	236.80	239.00	2.20	15.55	1061.89	-	-	-	Tensional Perla

Significant Intercepts for 2018 Exploration Drill Holes									
Drill Hole ID	From (m)	To (m)	Intercept (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Vein
SJD-1828	219.50	292.00	72.50	0.19	2.79	-	-	-	Bx Saavedra
SJM-364	200.80	202.50	1.70	0.22	132.68	-	-	-	Rml 425 A
SJM-367	175.30	176.40	1.10	0.08	2.50	-	-	-	Rml 425 A
SJM-367	363.20	369.10	5.90	0.08	4.32	-	-	-	Rml Ayelén NW
SJD-1834	38.50	39.30	0.80	0.08	109.10	-	-	-	Manteca
SJD-1849	85.70	86.00	0.30	0.27	2.50	-	-	-	Tornado
SJD-1850	189.35	190.05	0.70	0.53	4.64	-	-	-	RmlHVNC
SJM-381	93.70	94.55	0.85	3.19	102.93	-	-	-	Trazas EW
SJM-382	517.50	518.80	1.30	3.34	250.00	-	-	-	Trazas EW
SJM-383	293.50	29.00	0.50	1.17	141.59	-	-	-	not known
SJD-1851	251.90	255.30	3.40	0.27	43.85	1.14	4.63	6.38	Polimetalica I
SJD-1852	64.15	66.55	2.40	0.23	5.00	-	-	-	not known
SJD-1853	247.90	248.60	0.70	0.12	148.86	2.57	8.16	6.42	Polimetalica I
SJD-1854	255.15	255.95	0.80	0.21	64.36	1.20	1.02	0.26	Polimetalica I
SJD-1855	260.85	261.45	0.60	4.04	5.20	0.03	0.67	2.35	Polimetalica I
SJD-1855	287.75	288.30	0.55	0.46	28.00	0.02	2.46	3.49	not known
SJD-1856	188.95	189.25	0.30	9.17	8.91	0.02	0.28	0.31	not known
SJD-1856	223.40	224.00	0.60	0.60	74.56	0.43	0.11	0.03	not known
SJD-1856	246.20	247.20	1.00	0.13	3.47	0.04	0.39	1.44	Polimetalica I
SJD-1856	254.10	254.60	0.50	0.71	5.80	0.03	1.21	1.86	not known
SJD-1856	278.80	279.15	0.35	1.48	3.32	0.00	0.00	0.04	not known
SJD-1857	251.15	252.20	1.05	0.58	14.00	0.01	2.60	1.85	not known
SJD-1857	277.80	278.65	0.85	1.60	18.49	0.05	2.72	2.21	Polimetalica I

Table 7-6 – Significant Intercepts For 2018 Mineral Resource Definition Drill Holes

Drill Hole ID	From (m)	To (m)	Intercept (m)	Au (g/t)	Ag (g/t)	Vein
SJD-1774	145.80	146.40	0.60	1.30	21.56	Maia
SJD-1775	85.85	86.25	0.40	2.00	12.38	Maia
SJD-1775	90.00	91.40	1.40	1.00	17.09	Maia
SJD-1778	68.10	68.55	0.45	1.30	21.49	Beto
SJD-1778	281.00	283.85	2.85	1.34	7.44	Maia
SJD-1779	114.70	115.50	0.80	0.81	9.93	Maia
SJD-1781	66.15	67.25	1.10	3.96	210.62	Odín
SJD-1781	82.35	82.80	0.45	1.12	124.18	Guadalupe
SJD-1782	82.50	85.55	3.05	4.74	78.09	Odín
SJD-1783	70.30	72.95	2.65	1.89	57.76	Odín
SJD-1784	140.35	140.90	0.55	0.24	2.50	Maia
SJD-1785	287.50	289.30	1.80	0.28	2.50	Maia
SJD-1786	130.35	130.90	0.55	8.44	487.91	Odín
SJD-1786	143.30	144.15	0.85	0.85	70.72	not known
SJD-1786	149.05	150.55	1.50	3.11	7.41	Guadalupe
SJD-1787	136.80	138.45	1.65	2.15	187.05	Odín
SJD-1787	143.65	144.65	1.00	1.10	23.29	Guadalupe
SJD-1788	85.25	85.55	0.30	0.08	2.50	Sig.Odin Sur
SJD-1789	163.55	163.90	0.35	1.53	160.58	Odín
SJD-1789	167.35	169.70	2.35	2.32	47.08	Guadalupe
SJD-1790	213.20	213.50	0.30	0.40	2.50	Guadalupe
SJD-1791	218.30	218.80	0.50	0.20	20.59	Maia
SJD-1793	81.60	81.90	0.30	0.08	2.50	Maia
SJD-1794	142.50	144.00	1.50	2.28	53.67	Sig.Odin Sur
SJD-1794	145.68	150.30	4.62	4.52	102.23	Odín
SJD-1794	194.30	195.03	0.73	1.67	110.22	Guadalupe
SJD-1795	66.00	66.60	0.60	0.17	17.37	Odín
SJD-1797	257.26	257.65	0.39	1.77	137.24	Guadalupe
SJD-1798	127.95	129.15	1.20	0.08	4.95	Guadalupe
SJD-1799	78.70	80.35	1.65	0.37	32.29	Guadalupe
SJD-1800	102.28	103.05	0.77	2.92	32.97	Odín
SJD-1800	124.60	125.00	0.40	7.00	61.61	Guadalupe
SJD-1801	201.50	204.65	3.15	2.45	70.30	Odín
SJD-1801	235.00	235.60	0.60	0.96	6.63	Guadalupe
SJD-1801	264.45	264.90	0.45	0.93	90.71	Guadalupe
SJD-1803	120.90	121.55	0.65	0.48	47.82	Guadalupe
SJD-1804	153.85	154.45	0.60	0.46	26.26	Guadalupe
SJD-1818	132.70	134.00	1.30	0.23	5.76	Maia
SJD-1824	164.00	165.05	1.05	3.57	6.12	Maia
SJD-1826	136.90	140.30	3.40	0.64	28.58	Maia

Table 7-7 – Significant Intercepts for 2019 Exploration Drill Holes

Significant Intercepts for 2019 Exploration Drill Holes									
Drill Hole ID	From (m)	To (m)	Intercept (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Vein
SJD-1858	250.00	250.90	0.90	0.30	37.25	0.70	0.45	0.240	not known
SJD-1859	230.00	231.05	1.05	0.64	16.12	0.14	0.22	0.010	not known
SJD-1860	258.90	259.80	0.90	0.02	13.30	0.28	0.61	0.700	Polimetalica I
SJD-1862	308.00	308.60	0.60	0.51	9.14	0.00	0.07	0.010	not known
SJD-1864	281.55	284.80	3.25	0.33	83.41	4.47	0.75	0.190	not known
SJD-1865	407.85	409.10	1.25	0.39	12.22	0.15	2.13	3.920	Polimetalica I
SJD-1866	383.30	388.50	5.20	0.28	6.18	0.11	0.79	1.210	not known
SJD-1867	441.70	443.00	1.30	0.64	30.64	0.17	0.10	0.040	not known
SJD-1868	361.00	361.90	0.90	0.14	8.57	0.02	1.99	3.570	Polimetalica I
SJD-1869	372.60	373.80	1.50	0.07	6.06	0.02	0.04	0.280	not known
SJD-1870	383.90	385.20	1.30	5.01	63.73	0.36	2.29	3.810	Polimetalica I
SJD-1872	283.05	288.77	5.72	0.01	4.12	0.00	0.00	0.000	Polimetalica I
SJD-1874	229.20	230.25	1.05	0.22	35.19	0.55	0.53	0.030	Olivia
SJD-1875	226.00	226.60	0.60	0.75	14.01	0.06	0.10	0.030	Olivia
SJD-1878	152.60	154.50	1.90	0.02	4.84	-	-	-	Pluma
SJD-1880	72.40	72.80	0.40	0.17	7.31	-	-	-	Pluma
SJD-1882	183.14	189.90	6.76	0.09	3.79	-	-	-	Pluma
SJD-1883	53.98	56.00	2.02	0.02	1.73	-	-	-	Patria
SJD-1885	32.20	35.00	2.80	0.06	4.03	-	-	-	Patria
SJD-1886	83.50	84.50	1.00	1.85	4.37	-	-	-	Patria
SJD-1908	154.30	155.25	0.95	0.04	6.38	-	-	-	Pluma
SJM-384	213.80	215.10	1.60	0.97	9.04	-	-	-	Antonella EW
SJD-1909	271.90	272.90	1.00	0.07	25.06	0.56	0.67	1.270	Polimetalica I
SJD-1909	280.80	282.05	1.25	0.28	10.43	0.03	0.70	1.140	Polimetalica I
SJD-1918	185.58	185.88	0.30	0.13	1.00	0.00	0.00	0.004	Polimetalica I
SJD-1944	188.90	189.20	0.30	0.98	55.56	-	-	-	Manteca Norte
SJD-1959	219.85	220.35	0.50	0.85	7.00	0.09	1.14	2.270	Aguas Vivas
SJD-1959	263.60	263.90	0.30	1.27	7.00	0.03	1.22	1.520	Aguas Vivas
SJD-1961	61.05	61.50	0.45	1.38	2.50	0.01	0.43	0.010	Aguas Vivas
SJD-1961	130.35	130.77	0.42	2.18	2.50	0.00	0.00	0.002	Aguas Vivas
SJD-1961	133.57	134.47	0.90	1.06	29.37	0.00	0.03	0.001	Aguas Vivas
SJD-1961	135.60	136.00	0.40	0.79	11.54	0.00	0.10	0.020	Aguas Vivas
SJM-429	310.60	314.40	3.85	8.10	239.31	-	-	-	Antonella
SJD-1963	164.70	165.80	1.12	1.97	228.32	-	-	-	Roma
SJD-1980	145.00	146.15	1.15	7.12	467.61	-	-	-	Kospi SE
SJD-1980	199.10	199.70	0.60	46.07	11416.81	-	-	-	Kospi SE 02
SJM-432	102.80	106.00	3.20	4.82	501.67	-	-	-	Kospi
SJM-433	44.60	48.75	4.15	3.26	155.46	-	-	-	RHVN K
SJM-433	68.60	69.90	1.30	30.43	1990.67	-	-	-	RHVN D
SJM-434	102.50	103.80	1.30	2.65	265.65	-	-	-	RHLHVND
SJD-2001	156.70	157.70	1.00	6.30	354.98	-	-	-	Milagro
SJD-2013	89.10	90.05	0.95	1.02	141.93	-	-	-	Sigmoide Luli

Significant Intercepts for 2019 Exploration Drill Holes									
Drill Hole ID	From (m)	To (m)	Intercept (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Vein
SJD-2014	75.45	80.00	4.55	1.52	45.36	-	-	-	Sigmoide Luli
SJD-2013	95.30	98.90	3.60	7.04	727.32	-	-	-	Luli Sur
SJD-2014	104.15	105.00	0.85	4.21	753.46	-	-	-	Luli Sur
SJD-2013	100.20	101.50	1.30	1.22	89.66	-	-	-	Shala
SJD-2013	141.05	142.90	1.85	13.27	1259.09	-	-	-	Mara
SJD-2014	70.55	72.65	2.10	2.70	43.42	-	-	-	Ramal Luli
SJD-2018	198.20	200.65	2.45	24.35	1302.49	-	-	-	Ramal Ayelen
SJM-446	74.00	76.00	2.00	1.66	78.44	-	-	-	New Vein

Table 7-8 – Significant Intercepts for 2020 Exploration Drill Holes

Significant Intercepts for 2020 Exploration Drill Holes							
Drill Hole ID	From (m)	To (m)	Interval (m)	Width (m)	Au (g/t)	Ag (g/t)	Vein
SJD-2070	119.30	120.28	0.98	0.90	9.60	207.00	Micaela Oeste
SJD-2074	91.85	92.15	0.30	0.30	0.40	32.00	
SJD-2081	164.98	165.80	0.82	0.60	0.80	34.00	Emily
SJD-2085	166.05	166.90	0.85	0.60	1.60	100.00	
SJD-2090	118.30	118.80	0.50	0.50	0.10	35.00	
SJD-2070	119.30	120.28	0.98	0.90	9.60	207.00	Elisa
SJD-2058	71.42	72.32	0.90	0.50	0.50	118.00	Karina
SJD-2084	129.00	131.00	2.00	1.90	3.50	1024.00	Carlos
SJD-2103	70.35	73.30	2.95	2.80	17.10	591.00	Odin
SJD-2109	156.10	157.15	1.05	0.90	6.90	126.00	
SJD-2108	159.10	160.20	1.10	1.00	7.00	812.00	Julia
SJD-2110	149.00	150.25	1.25	1.20	5.80	197.00	
SJD-2114	169.90	170.70	0.80	0.80	1.50	332.00	Erika
SJD-2110	94.40	95.45	1.05	0.90	8.00	398.00	V1
SJD-2118	118.60	119.40	0.80	0.80	1.15	226.00	V2
SJD-2145	183.70	184.50	0.80	0.80	1.65	449.00	Isabel
SJD-2154	238.20	240.60	2.40	2.40	4.92	19.00	BxHorizontal
SJM-511	261.20	262.10	0.90	0.90	1.84	248.00	Emilia
SJM-518	23.85	25.05	1.20	1.20	3.79	407.00	Cindy
SJD-2140	74.60	77.95	3.40	3.35	9.98	523.00	HVS
SJD-2129	71.35	72.70	1.40	1.35	6.18	1309.00	RmlKOSPI
SJM-505	179.75	182.30	2.60	2.55	10.98	968.00	Odin
SJM-507	152.70	153.80	1.10	1.10	14.92	295.00	Sig Luli
SJM-508	170.30	171.80	1.50	1.50	2.41	248.00	Sig Luli
SJD-2176	101.80	103.05	1.30	1.20	1.06	319.00	Aline
SJD-2184	50.00	51.25	1.30	1.20	3.98	557.00	Ramal HVNX
SJD-2188	34.40	36.16	1.80	1.30	13.84	3149.00	
SJD-2210	74.45	76.05	1.60	1.60	5.64	648.00	Isabel
SJD-2211	84.65	86.25	1.60	1.60	3.74	376.00	
SJD-2210	62.70	63.60	0.90	0.90	2.22	772.00	Luisa

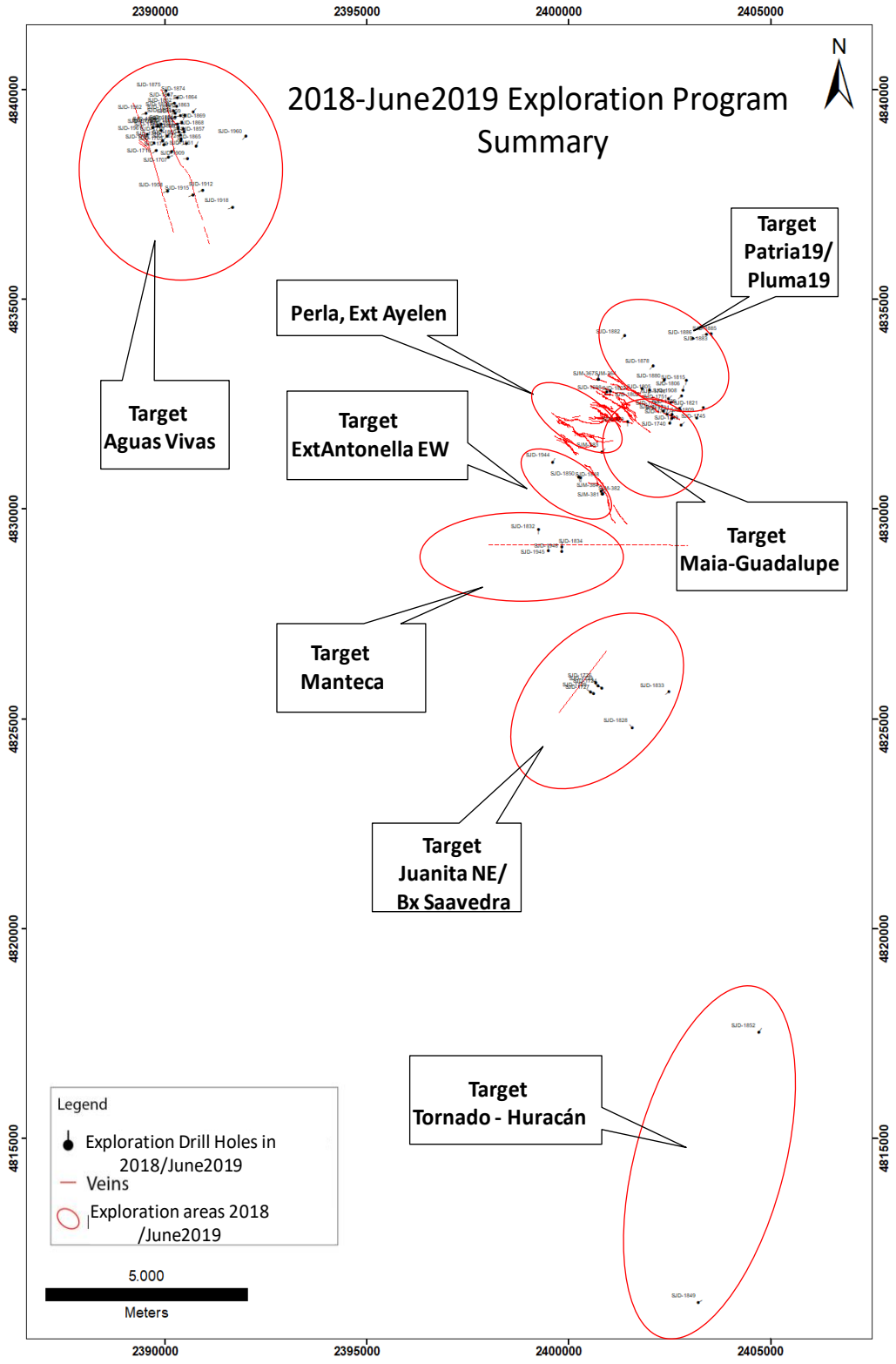

Figure 7-1 – 2018 To 2019 Exploration Program Summary – Source: Hochschild (2019)

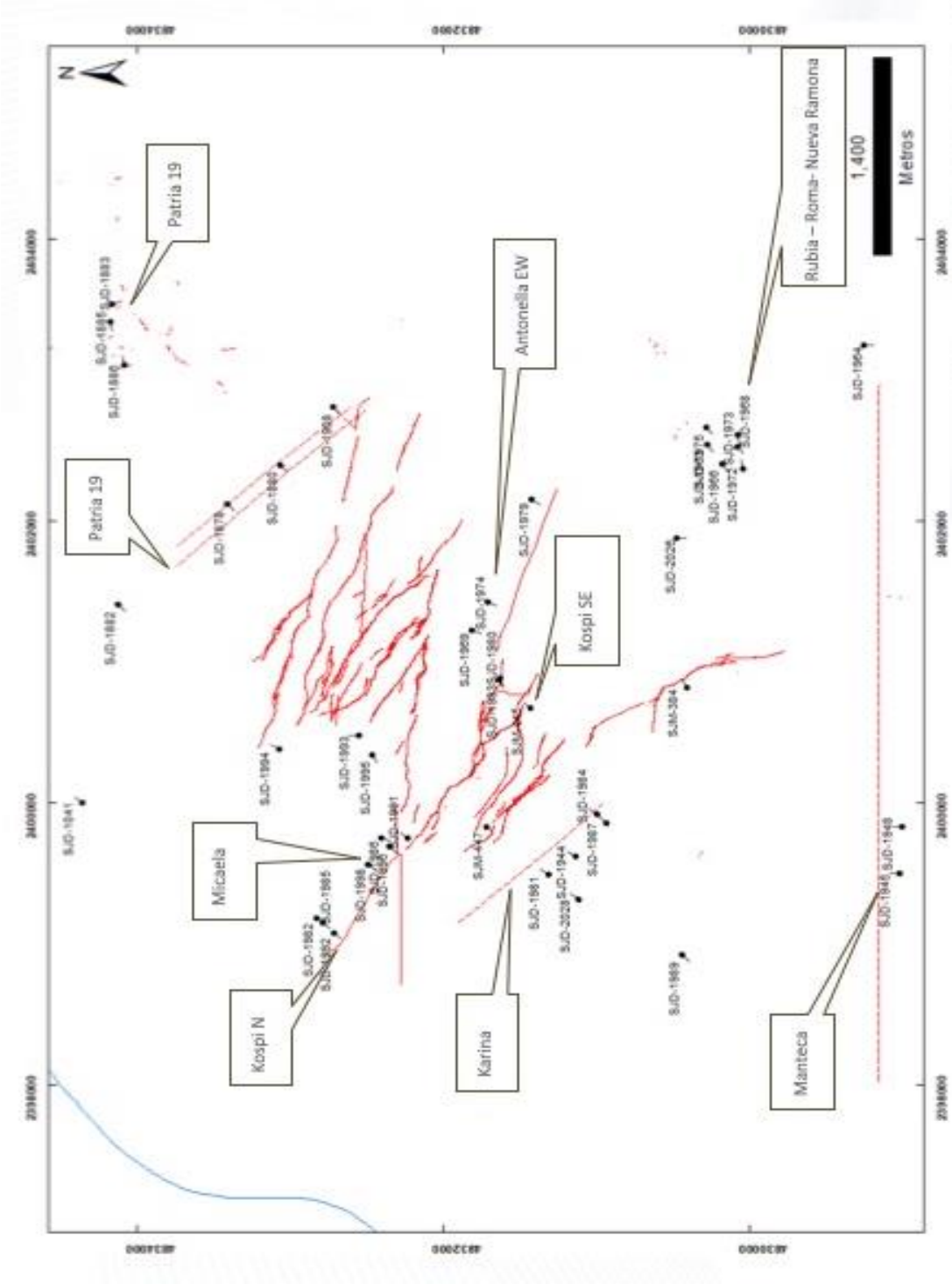

Figure 7-2 – 2019 Exploration Drill Holes – Source: Hochschild (2019)

8 SAMPLE PREPARATION, ANALYSES AND SECURITY

8.1 Sample Preparation and Analyses

The sample preparation is routinely carried out by MSC employees.

In 2018 and until April 2019, all drill core and material from the underground drilling and channel sampling programs, as well as the production samples, were sent to the Alex Stewart Laboratory in Perito Moreno for sample preparation and analysis. Samples that came from the Aguas Vivas Project were sent to the Alex Stewart Laboratory in Mendoza for inductively coupled plasma ("ICP") analysis. After the beginning of April 2019, all sample preparation and assaying has been performed at the San José Mine laboratory.

Drill samples and channel samples are processed in batches of 37 samples and were assayed for both gold and silver using fire assay with gravimetric finishing and for lead, zinc, copper, and iron by atomic absorption spectroscopy ("AAS"). Detection limits are < 0.4 ppm Au and < 2 ppm Ag.

The San José laboratory has detailed written protocols and procedures for plant sampling, sample preparation and sample analysis, which detail chain of custody and security. The in-house laboratory handles only control samples from the process plant and underground mine samples. Up until April 2019, other samples (mainly geology samples) had been sent to the Alex Stewart laboratory in Perito Moreno. All sample preparation and assaying are now completed at the San José laboratory. This Technical Report author believes that the sample preparation, analysis, and security procedures are carried out in accordance with best exploration and industry practices.

8.1.1 San José In-House Laboratory

The San José in-house laboratory handles only control samples from the process plant and underground mine samples. The laboratory has been audited by assay laboratory specialists Smee and Associates in 2008 (Smee 2008) and by AMEC in 2010 (Simón 2010). The following description of QA/QC procedures and laboratory sample preparation and analyses to March 31, 2010 are taken from these two reports and MSC internal monthly reports.

AMEC reviewed as part of its 2009-2010 audit of the MSC laboratory at site:

- Sample preparation procedures (including reception, drying, crushing, splitting, pulverizing and quality control ("QC") associated with sample preparation);

- Analytical procedures (including analytical protocols, equipment and chemical certificates, scales and calibrations, verification protocols, certified reference material, insertion of CRMs and control samples and the processing of QC data);
- Procedures for data entry and result reporting; and
- Security and chain of custody.

Since 2009, CRMs have been randomly inserted into each batch of samples. CRMs have been obtained from accredited laboratories such as Bureau Veritas Minerals, CDN Resource Laboratories Ltd., Geostats PTY Ltd., Ore Research and Exploration, and SGS Laboratories.

MSC has implemented a Laboratory Management Information System to assist the managers in compiling, tracking, and reporting data and limit handling errors.

The San José in-house laboratory is ISO 17025 certified. The laboratory has had PTP-MAL certification since December 2009.

Audits were routinely performed on procedures and record keeping of the San José laboratory in 2019. Mining Plus was provided this information by the registrant, with copies of these audits made available to P&E for review. Based on detailed observations and discussions with laboratory staff in early 2019, this Technical Report author believes that the quality of the data is reliable and that the sample preparation and analysis continue to be carried out in accordance with exploration and industry best practices.

8.2 Reverse Circulation Procedures

Reverse circulation drill holes were sampled over their entire length at approximately 1 to 1.5 m intervals and split using a Gilson splitter to obtain a representative sample. Two splits were taken from each sample interval, one sent to the laboratory for sample preparation and analysis and the other was retained on site. A small sample was collected in chip trays for geological logging. All samples were shipped directly by ALS Chemex to their preparation laboratory in Mendoza, with pulps flown to Degerstrom for analysis.

8.3 QA / QC Procedures

The QA/QC procedures are adequate, and the results demonstrate the database is appropriate for use in the Mineral Resource and Mineral Reserve Estimates.

MSC geologists add eight QA/QC samples (one field duplicate, one coarse duplicate, one fine duplicate, two coarse blank, one fine blank and two low and one medium certified reference material (“CRM”)) to 29 exploration drilling samples, totalling 37 samples. For interior mine drilling and channel sampling, MSC

geologists added seven QA/QC samples, totalling 37 samples; four are added at the mine during sample preparation (one field duplicate, one pulp duplicate, one coarse duplicate and alternating between one low, one medium or one high CRM) and three QA/QC samples are added at the Alex Stewart laboratory (one coarse reject, one pulp duplicate and one check duplicate). An MSC representative is in charge of overseeing the insertion of these additional CRMs at the Alex Stewart laboratory. The performance of the CRMs and blanks are discussed in Section 9 Data Verification, of this Technical Report Summary.

The samples in between CRMs are re-assayed when a CRM fails.

Control samples were expected to fall within the ranges listed below:

- Field duplicates—permitted range was ± 30%, 90% of the time;
- Coarse preparation duplicates—permitted range was ± 2%, 90% of the time;
- Fine preparation duplicates (pulps)—permitted range was ± 10%, 90% of the time;
- CRMs were considered to be acceptable if they fell within approximately 2 standard deviations (2σ) of the accepted certified value, 95% of the time;
- Coarse blanks were acceptable if the result was under 3x the laboratory detection limit; and
- Fine blanks were acceptable if the result was under 2x the laboratory detection limit.

All QA/QC data is captured by the laboratory managers and plotted in Excel charts. Samples submitted for analysis can be monitored in real time by the Lima office with the new database system implemented by Hochschild. This allows the manager to ensure that the proper amount of QA/QC samples are used, and that the database is maintained in a timely manner. Results for standards, duplicates and blanks are charted and reported in the MSC monthly internal reports. P&E reviewed these monthly reports and verified that the control samples fell within the established QA/QC ranges and samples that were out of range were re-analyzed as per Company protocols.

The laboratory also tracks the granulometry from the sample preparation and plots the results in charts each month. The results from the blanks are also charted. P&E examined both sets of data and verified that the data fell within the established QA/QC ranges.

8.4 Sample Shipment and Security

Samples were kept in a secure storage area and loaded into a truck when sufficient numbers were ready for shipment to the laboratory. All 2018, and up to April 2019, drill core from the underground and surface drill programs were shipped directly by truck to Alex Stewart laboratory in Perito-Moreno for preparation and analysis. The Alex Stewart laboratory in Perito-Moreno is accredited to international quality

standards ISO 14001:2015 and ISO 9001:2015. As of April 2019, all sample preparation and assaying has been performed at the San José laboratory.

The data used for the current Mineral Resource and Mineral Reserve Estimates was generated from underground channel sampling and diamond drill core and is further discussed in Sections 11 Mineral Resource Estimates and 12 Mineral Reserves Estimates of this Technical Report Summary.

8.4.1 San José In-House Laboratory

With regards to the acquisition of samples at the processing plant, the laboratory staff is responsible for managing and securing sampling at the different sampling points and transporting those samples to the laboratory for preparation and analysis. Samples are acquired at designated safe points by plant personnel who then deliver the samples to the supervisor of the laboratory.

The on-site laboratory has detailed written protocols and procedures for plant sampling, sample preparation and sample analysis, which detail chain of custody and security.

The Smee (2008) audit of the San José internal laboratory and sample analysis concluded that the laboratory was being operated in accordance with industry best practice.

Pulp and reject duplicates checked by Smee and AMEC show that the MSC laboratory is preparing samples correctly and the precision for both the pulp and rejects is satisfactory.

This Technical Report Summary author believes that the sample preparation and analysis are carried out in accordance with exploration and industry best practices.

8.5 Core Handling Procedures

The project geologist is responsible for ensuring procedures are followed at the drill rig which includes verifying drill core retrieval and assembly, core box orientation, drill core marker placement and mark-up, core transportation methodology and also security, geotechnical logging procedures, core recovery and photography in the drill core shed.

The logging process includes recording lithology, alteration, mineralogy, and structure. All drill core is photographed.

Sample intervals are marked both on the drill core and the core box. The geologist marks the core splitting line on the drill core. Friable zones are taped prior to cutting the drill core to avoid loss at the saw. A metallic wedge is used on friable drill core to force it into two halves and then all material from one of the halves is sampled in its entirety, including fines. Sample intervals consider geological, mineralogical, and

structural boundaries. Sample lengths were a minimum of 0.3 m and up to 1.0 m. Non-mineralized drill core is not sampled.

The project geologist ensures that the drill core is cut properly in half by the technician using a diamond saw. One half of the drill core is returned to the core box, the other half is placed in a pre-numbered and tagged sample bag.

Once the sample is complete, the bag is immediately sealed. The sample bag has the sample number clearly written on both sides of the bag and the corresponding sample tag included in the bag with the sample. Individual sample tags have pre-assigned sample numbers to account for the insertion of blanks, duplicates and CRMs that will be submitted with the shipment. All samples are then entered into the database.

This Technical Report author is of the opinion that the 2018-2019 drilling programs have been run well and that MSC was using industry best practices for drilling, logging, and sample chain of custody.

During the 2018-2019 drill programs, drill holes were HQ in size.

8.6 Specific Gravity Measurements

For San José, a global bulk density (in lieu of specific gravity due to some air entrainment in the rocks) value per vein has been applied for volumetrics calculations, based on the median measured bulk density. P&E notes that the bulk density values are consistent with values used in previous Mineral Resource Estimates for San José and have been implemented correctly in the audited block models.

8.7 Historic Sampling and Analysis

No historic sampling and analysis have been provided.

9 DATA VERIFICATION

9.1 Quality Control Program

A total of 20 different certified reference materials ("CRMs"), prepared by Ore Research & Exploration, SGS, Smee Consulting and Associates, Geostats PTY Ltd., Bureau Veritas Minerals and CDN Laboratories LTD., were used at San José for exploration QA/QC purposes. The CRMs were certified for gold and silver and grades ranged from a low of 0.27 g/t Au and 0.518 g/t Ag to a high of 10.08 g/t Au and 842 g/t Ag. Any assay of a CRM that fell outside of +/- two standard deviations from the certified value resulted in the resampling of all samples between CRMs in a sample batch.

For the OREAS 905 CRM, with a certified grade of 0.391 g/t Au and 0.518 g/t Ag, there were 20 data points and 1 failure for gold and the remainder of the samples showed an even distribution around the certified value. All values for 2019 passed.

CRMs OREAS 621 and OREAS 622 had 71 and 79 data points, respectively. There were no failures.

CRM CDN-ME-11, with a certified grade of 1.38 g/t Au and 79.3 g/t Ag, had 291 data points. All data points analyzed at Alex Stewart fell within +/- two standard deviations from the certified value. The assays for CDN-ME-11 showed an even distribution around the certified value.

CRM CDN-ME-6, with a certified grade of 2.7 g/t Au and 101 g/t Ag, had a total of 62 data points and no failures. The assays for CDN-ME-6 showed a tendency to be higher than the certified grades for Au.

CRM G913-3, with a grade of 2.36 g/t Au and 219 g/t Ag, had 371 samples and no failures. All data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value.

CRM STD15, with a certified grade of 7.408 g/t Au and 603 g/t Ag, had a total of 5 data points with no failures. All data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value.

CRM STD16, with a certified grade of 2.224 g/t Au and 176.03 g/t Ag, had a total of 18 data points with no failures. All data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value.

CRM STD17, with a certified grade of 4.346 g/t Au and 494.88 g/t Ag, had a total of 20 data points with no failures. All data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value.

CRM STD18, with a certified grade of 7.930 g/t Au and 596.56 g/t Ag, had a total of 20 data points with no failures. All data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value.

CRM STD19, with a certified value of 16.663 g/t Au and 1,421.80 g/t Ag, had a total of 9 data points with no failures. All data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value.

CRM STD20 had a total of 282 data points, with a grade of 3.37 g/t Au and 341.16 g/t Ag, had one failure for gold and silver. The remaining data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value.

CRM STD21 had a total of 290 data points, with a grade of 9.946 g/t Au and 680.59 g/t Ag, had one failure for silver. The remaining data points analyzed at Alex Stewart showed an even distribution within +/- two standard deviations from the certified value for silver and a tendency to be lower than the certified grades for Au.

CRM STD23, with a certified grade of 10.8 g/t Au and 842 g/t Ag, had a total of 482 data points and 1 failure for Ag. The remaining data points analyzed at Alex Stewart fell within +/- two standard deviations from the certified value, although the assays for STD23 showed a tendency to be lower than the certified grades for Au and Ag.

CRM STD24, with a certified grade of 3.344 g/t Au and 329 g/t Ag, had a total of 476 data points. All of the data points analyzed at Alex Stewart fell within +/- two standard deviations from the certified value. The assays for ST1D24 showed a tendency to be higher than the certified grades for Au and Ag.

CRM PLSUL27, with a certified grade of 2.358 g/t Au and 243 g/t Ag, had a total of 226 data points. All of the data points analyzed at Alex Stewart fell within +/- two standard deviations from the certified value.

Several CRMs showed biases for Au, Ag or both but remained within the 2 standard deviation limit. The geologists at San José were aware of the situation and new CRMs were ordered for use in 2019.

Two blanks were used at San José to monitor contamination, BLNF and BLNG. BLNF was a certified blank prepared by Alex Stewart and BLNG was barren material sourced from the San José Property.

There were 2,399 blank assays for BLNF in 2018 and only three failures for gold. The batches were re-run and no further action was taken. There were 2,689 blank assays for BLNG in 2018 with nine failures for gold and one for silver. The remainder of the blanks were within the limits of three times the detection limit. The batches were re-run and no further action was taken.

There were 330 blank assays for BLNF in 2019 with four failures for silver and two for gold, the batches were re-run and no further action was taken. There were 899 blank assays for BLNG in 2019 with no failures.

Both coarse and pulp duplicates were used in the QA/QC programs. Coarse duplicates were taken after the coarse crushing before pulverizing. The coarse duplicate tests the sample size reduction in the preparation laboratory and the error in analysis. 2018 coarse duplicate results for gold are presented in Figure 9-1 and coarse duplicate results for silver are presented in Figure 9-2. 2019 coarse duplicate results for gold are presented in Figure 9-3 and coarse duplicate results for silver are presented in Figure 9-4.

Pulp duplicates are taken after the sample has been pulverized and tests the error in analysis. 2018 pulp duplicate results for gold are presented in Figure 9-5 and pulp duplicate results for silver are presented in Figure 9-6. 2019 pulp duplicate results for gold are presented in Figure 9-7 and pulp duplicate results for silver are presented in Figure 9-8.

Coarse and pulp duplicate behaviour for silver, particularly at lower grade values of silver, was outside of the range set by the Company in 2018 and 2019. Coarse and pulp duplicate behaviour for gold, particularly at lower grade values of gold, was outside of the range set by the Company in 2018. Coarse duplicate behaviour fell within the ranges set out for gold in 2019. Pulp duplicate behaviour of gold was outside the range set by the Company in 2019.

Overall, the results of the coarse duplicates and pulp duplicates were acceptable. Hochschild is making efforts to improve the precision of the field duplicates.

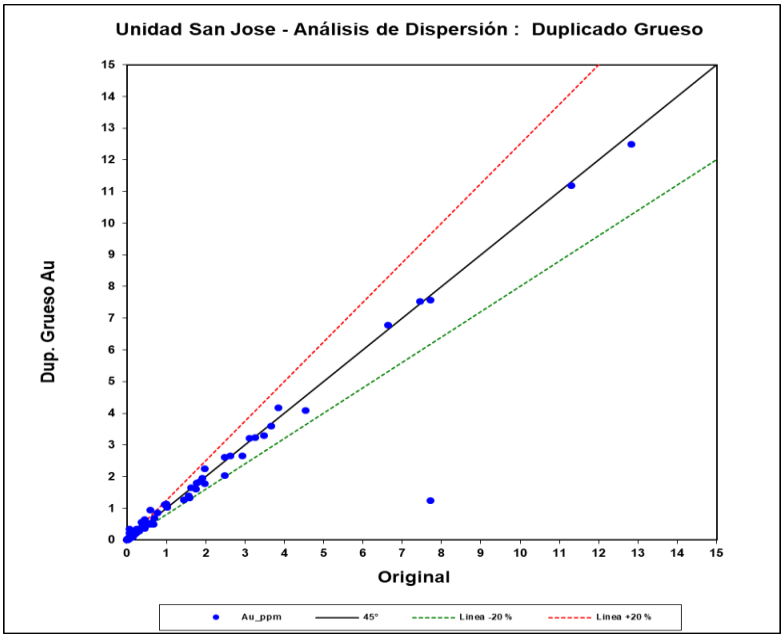

Figure 9-1 – 2018 Coarse Duplicates - Au – Source: Hochschild (2019)

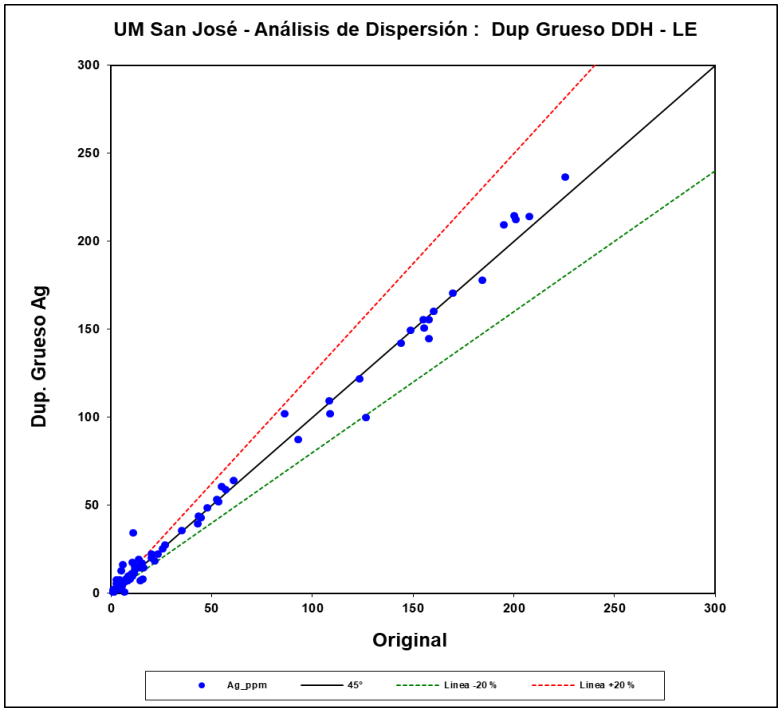

Figure 9-2 – 2018 Coarse Duplicates - Ag – Source: Hochschild (2019)

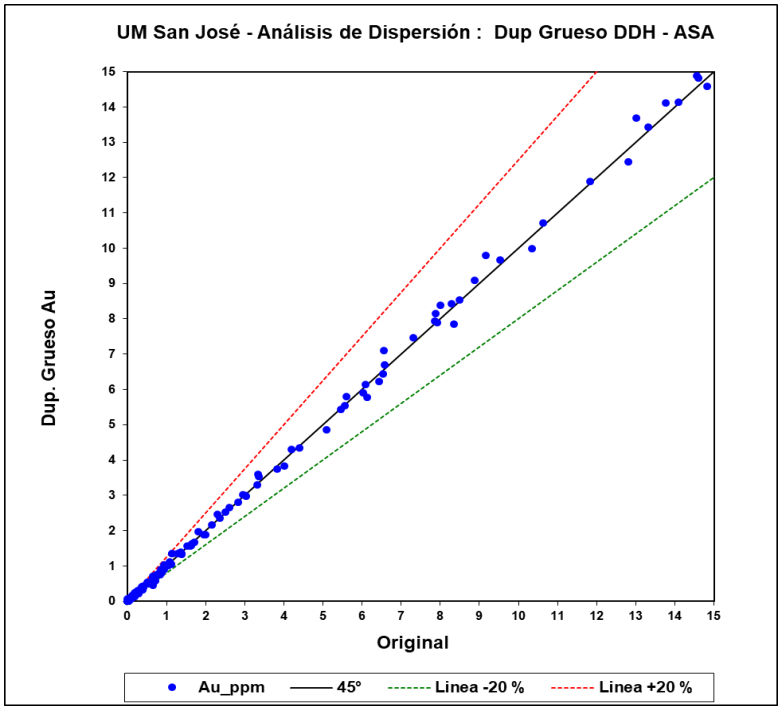

Figure 9-3 – 2019 Coarse Duplicates - Au – Source: Hochschild (2019)

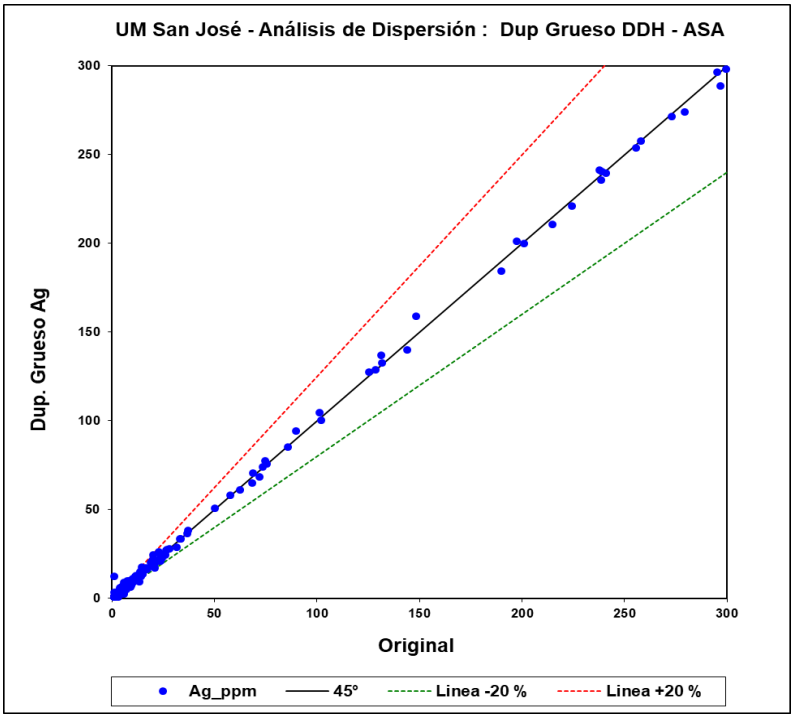

Figure 9-4 – 2019 Coarse Duplicates - Ag – Source: Hochschild (2019)

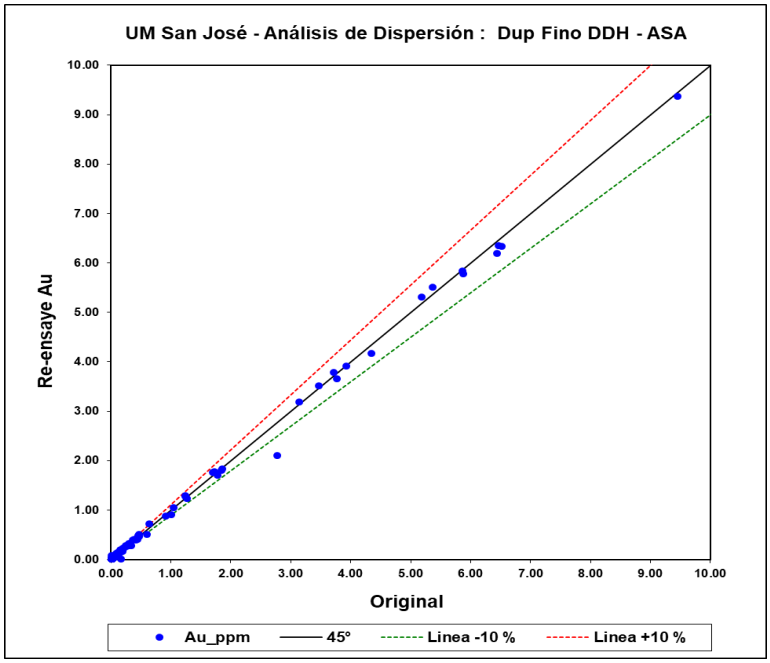

Figure 9-5 – 2018 Pulp Duplicates - Au – Source: Hochschild (2019)

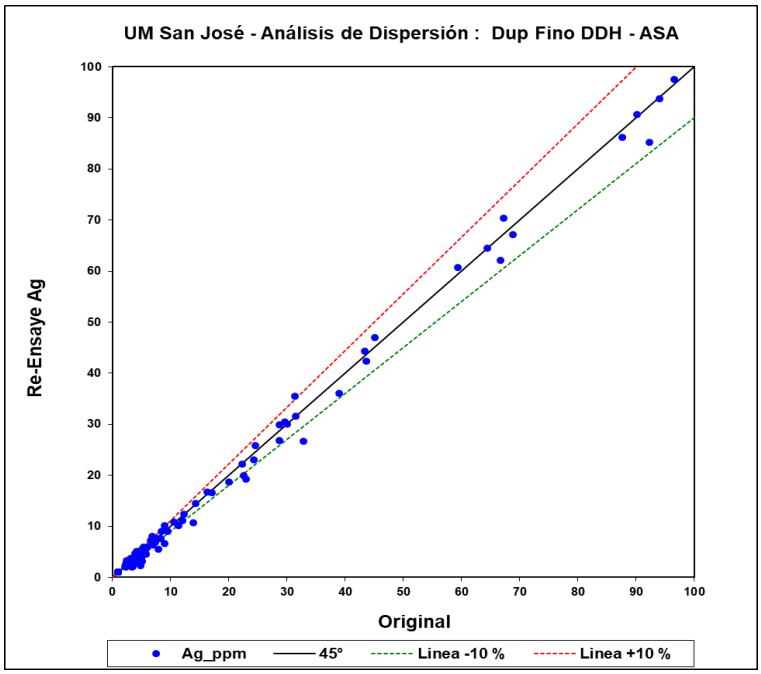

Figure 9-6 – 2018 Pulp Duplicates - Ag – Source: Hochschild (2019)

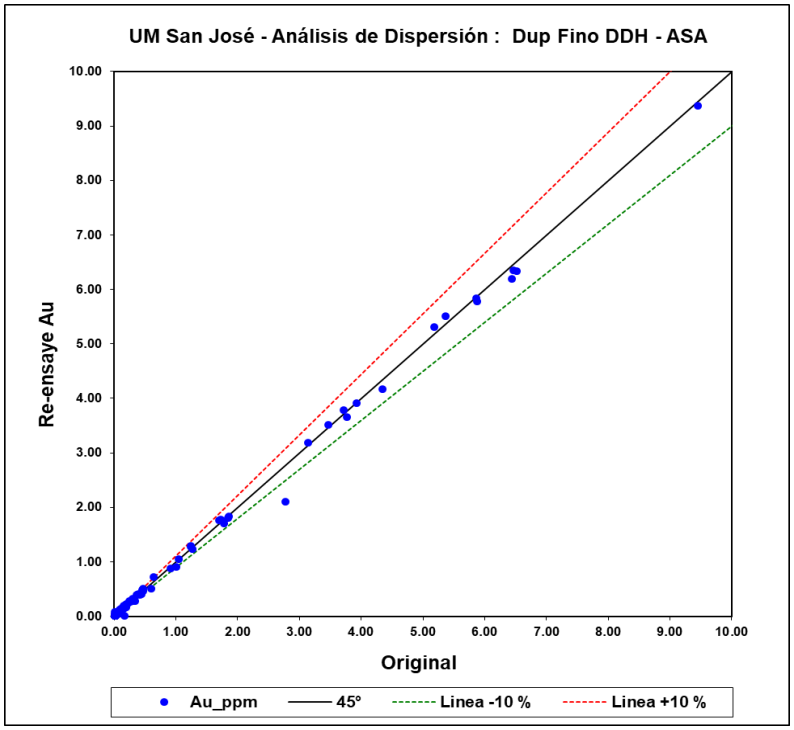

Figure 9-7 – 2019 Pulp Duplicates - Au – Source: Hochschild (2019)

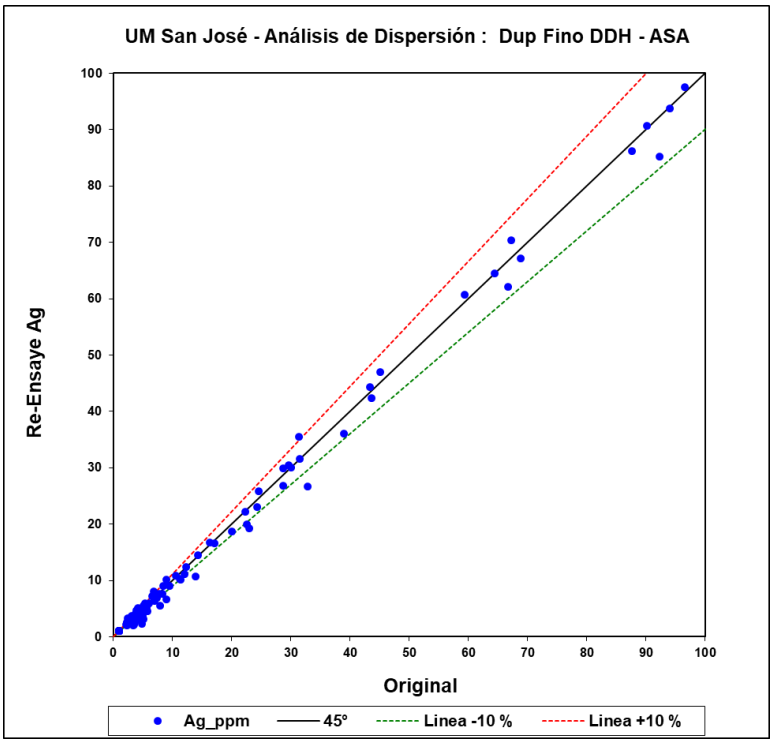

Figure 9-8 – 2019 Pulp Duplicates - Ag – Source: Hochschild (2019)

9.2 Verification of QC Program

The covid-19 pandemic has made the required site visit by a qualified person nearly impossible, and highly improbable. As a result, Mining Plus has enlisted a qualified person from the staff of the registrant and working at San Jose to perform selected tasks and relay such information back to Mining Plus.

During March 2021, site staff completed a number of tasks directed by Mining Plus qualified person, Raul Espinoza. He required of San José's General Manager, Carlos Benavides, and Mine Planning and Projects Superintendent, Pedro Mujica, to organize an on-site representative to inspect both surface and underground works. The information was prepared by Daniel Gonza, Mine Planning Chief, who collected the data and sent the information digitally to Mining Plus. Also, numerous Hochschild staff were interviewed; and reporting data, systems, and processes were examined. San José mine provided videos and photos for the main areas to corroborate if the processes – like sample preparation, QA/QC, drillhole storage, lab analysis, mining methods practice and mineral processing procedures – are in accordance with those indicated at the Technical Report Summary.

At the level of mining and mineral processing, the procedures followed do not require further comments as they are in accordance with what is indicated in the Technical Report Summary. Mining Plus was also able to examine the working area for the preparation of samples and chemical analysis, and has found it adequate, and the working protocol is consistent with the Technical Report Summary, however, there are opportunities for improvement.

- There is potential for contamination during crushing from of the dust generated. The dust generated during crusher and during the discharge of the crushed sample may contaminate the area of the drying carts.
- The main risk associated in the analysis stage is linked to manual identification of the crucibles and the cups, where human error can ensue.
- During homogenization and spraying stage, it has been observed that there is occasionally a loss of material due to improper placement of the sample on the equipment, this loss of material has potential of generating sampling bias.
- Outdoor core box storage can contribute to deterioration of the core samples by weathering and also prevent future identification of drillholes in the event that these samples are needed for future analysis.

Based on information provided by the registrant, during the January 2017 site visit by P&E qualified persons, 10 assay verification samples were taken from 10 drill holes from the 2016 drilling. Sample intervals were taken from a variety of low, medium, and high-grade mineralized material. The low-grade material was defined as the cut-off grade, between 2-2.5 g/t AuEq. The medium grade material was defined as the average grade, between 10-15 g/t AuEq. The high-grade material was defined as twice the average grade, between 20-30 g/t AuEq. The chosen intervals were then sampled by splitting the remaining half split core. The samples were documented, tagged with a unique sample number, bagged, and sealed with packing tape and taken by Mr. Puritch to the Alex Stewart laboratory in Perito Moreno.

At no time, prior to the time of sampling, were any employees or associates of MSC advised as to the location or identification of any of the sample intervals to be collected nor did they, at any time, have access to the sampled material.

A comparison of the P&E independent sample verification results versus the original assay results for gold and silver can be seen in Figure 9-9 and Figure 9-10. The P&E results for gold and silver were satisfactory and clearly demonstrate that the tenor of the mineralization is similar to what was originally reported.

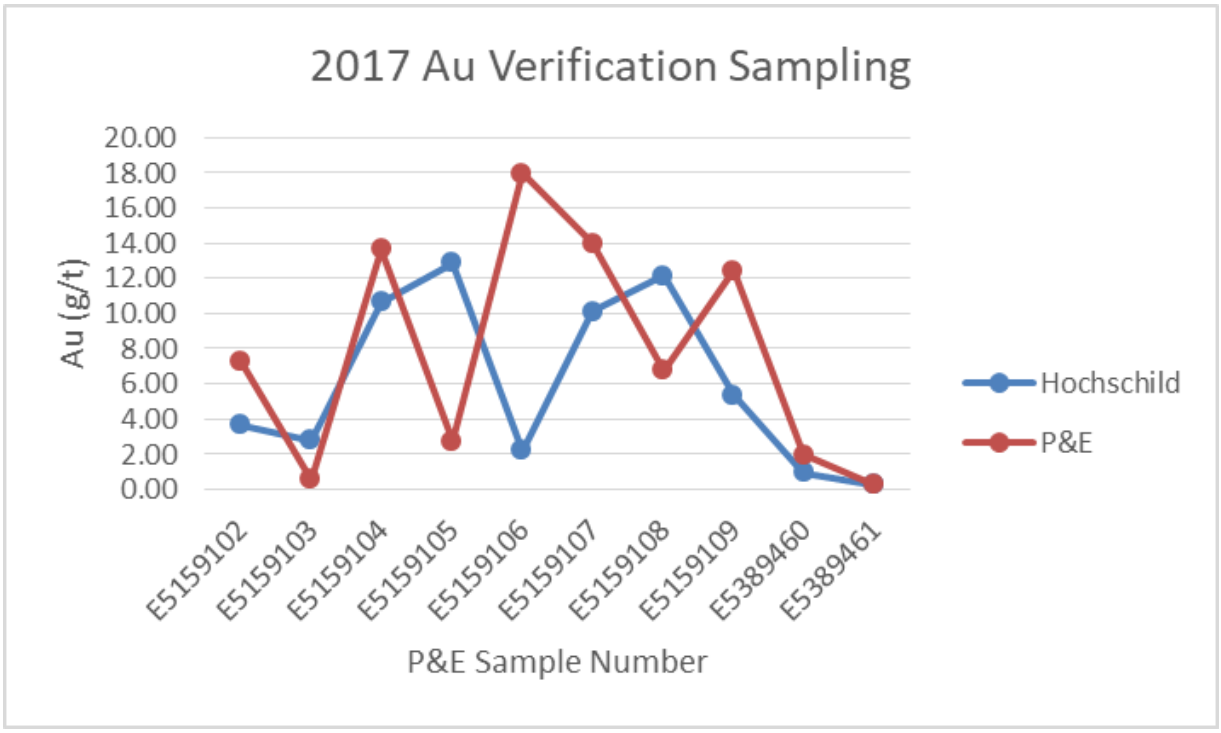

Figure 9-9 – 2017 Verification Sampling – Au

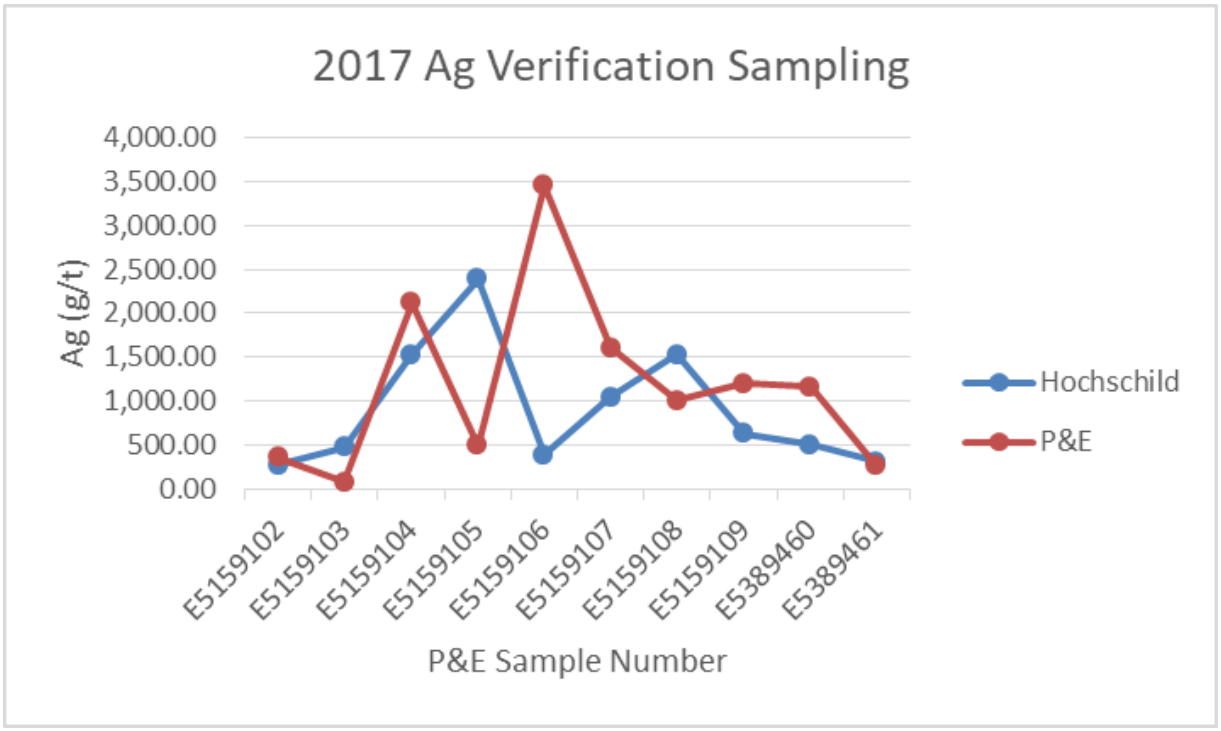

Figure 9-10 – 2017 Verification Sampling – Ag

9.3 Conclusion

This Technical Report Summary authors are of the opinion that the QA/QC procedures are adequate, and the results demonstrate the database is appropriate for use in the Mineral Resource and Mineral Reserve Estimates.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

Six different bench-scale metallurgical test programs had been conducted on San José samples between 1998 and 2007 in laboratories in Australia, Canada, Peru, and the U.S.A. The testwork by Australian firm Gekko in 2006-2007 had significant influence on the installed unit processes. The Gekko testwork had indicated metal process recoveries of 83% for Au and 87% for Ag. During the actual early operations (e.g. 2008-2009), gold recoveries were similar, however, silver was lower at approximately 83%.

10.1 Initial Characterization and Scoping Studies

Silver and gold mineralization were described in an early mineralogical study on a "master composite" conducted by an unidentified laboratory and reported by AMEC (ref. AMEC 2007). The valuable mineralization was described as being hosted in epithermal quartz veins, breccias and stockworks in the Huevos Verdes and Frea zones. The identified silver mineralization was three forms of silver sulphide (Ag2S) – argentite, acanthite, pyragyrite, as well as native silver. Electrum, an alloy of silver and gold, was identified as the main gold carrier.

Major gangue minerals were determined to be quartz and altered feldspars associated with minor amounts of micas, chlorite, and clay minerals. These minor minerals often adversely influence flotation separation performance and would need to be considered in planning mineral processing strategies.

10.2 Metallurgical Laboratory Test-Work Program

The ISO 17025-certified San José laboratory is responsible for plant sampling, sample analyses, and key process plant measurements. This includes head sample moisture and calibration of weightometers on ball mill feed conveyors. Sampling of flotation feed and flotation tailings protocols using secure, two-stage automatic samplers continue to be: primary cut every five minutes; secondary samples are accumulated for four- and 12-hour composites.

The San José chemical and metallurgical laboratories have over 22 managers and staff with two shifts daily. As of April 2019, the geology samples were being prepared and assayed on site and three persons were added per shift. The geology sample preparation and assaying had previously been performed at a commercial laboratory. Most of the analytical procedures had been dedicated to processing 18 plant samples per day, comprised of a few for metallurgical tests and several environmental samples.

The laboratory is outfitted with a complete set of modern atomic adsorption spectrometry ("AAS") and fire assay equipment including a relatively new, Microwave Plasma – Atomic Emission Spectroscopy ("MP-AES") machine that operates on inexpensive nitrogen gas. The extensive facilities are maintained in a

clean and neat condition. Drying ovens are controlled at 106°C, satisfactory for sulphide samples. Geology samples are dried at 130°C ±20°C.

The laboratory is certified under ISO 17025 and a LIMS system is in place. Two internal Hochschild audits of the laboratory were performed in 2019. No major issues were reported in these audits, many issues are typically raised, but none were identified that are expected to affect analytical precision and accuracy. Two inter-laboratory exchange analyses were performed during 2019 with a certified Canadian laboratory and the San José results were classified as satisfactory, which means the results were completely within a very narrow range of comparison.

San José process plant sampling and measurement procedures, sample preparation, analytical procedures, QA/QC, and reporting can be considered to fully meet acceptable standards.

Six different bench-scale metallurgical test programs had been conducted on San José samples between 1998 and 2007 in laboratories in Australia, Canada, Peru, and the U.S.A. (ref. AMEC 2007). In summary, these were:

- Degerstrom – U.S. (1998-1999): Performed scoping level gravity, flotation, and cyanidation tests on oxide ores.
- TECSUP – Peru (2002): Performed gravity, flotation concentration, and cyanidation tests on concentrates and gravity tails.
- Plenge (2004): Conducted gravity, flotation tests with cyanidation of concentrates and whole ore cyanidation tests on chip and rock samples from HVN (Huevos Verdes North) and HVS (Huevos Verdes South) structures.
- SGS / Lakefield – Canada (2004-2005): Approximately 150 individual tests were conducted on a series of composites, the results of which were used for initial process design. This design included gravity separation followed by flotation of sulphides from gravity tails and cyanidation of flotation concentrate. Gravity separation was replaced by flash flotation in later versions of initial process design. The results of mineralogical analyses by SGS/Lakefield concluded that the gold content of composite samples tests was primarily in electrum and only about 20% of the gold would be recovered in a gravity circuit. A portion of the electrum particles was observed to be >100 m and was expected to not respond well to flotation. Three flowsheets were conceived: (i) gravity-flotation-cyanide leaching of flotation concentrate; (ii) flotation and cyanide leaching of concentrate; and (iii) whole ore leaching. Recoveries (Au, Ag) were mineralized zone dependent and generally approached 90% or better. The highest recoveries were observed with whole ore leaching. Cyanide consumptions were observed to be elevated, probably due to copper and zinc contents of “whole ore” and of flotation concentrate.
- Gekko – Australia (2006-2007): Following the issuance of a Feasibility Study, MSC decided to examine the potential of a gravity-flotation-leaching circuit using Gekko technology. Gekko

technology centred on the use of Intensive Leach Reactors ("ILR"). For San José, the process would include ILR leaching of gravity and flotation concentrates, electrowinning gold and silver from a clarified leach solution and the production of doré bars in a foundry. Leached tailings would be washed in a thickener and a Gekko-designed resin column would scavenge the dissolved gold and silver in the tailings thickener overflow. The cyanide content of the thickener underflow would be destroyed using SO2-air methodology.

  - Gekko determined that the Bond Work Index of San José materials was 18.1 kwh/t, which was higher than the 15.3 kwh/t determined by SGS Lakefield.
  - Gekko's test results indicated significant gravity recoveries of Au and Ag, at 55% and 29%, respectively, in a 5.8% mass pull, which was a significantly high amount for a gravity circuit. The leaching testwork was conducted using bottle rolls at a low density (18% solids) and included the addition of 2 kg/t lead nitrate to a 2% NaCN solution which was oxidized by an unknown amount of hydrogen peroxide.

- TECSUP – Peru (2007): In 2007, two composite samples from the Kospi Vein were tested at TECSUP for initial metallurgical amenability testing based on the proposed (Gekko) San José design parameters. TECSUP also examined a flow sheet excluding the Gekko components.

In October 2005, AMEC issued a Feasibility Study, based on the SGS / Lakefield testwork which described a 750 tpd operation comprised of the following unit processes for the production of a gold-silver doré:

- Two-stages of crushing, single stage ball milling;
- Flotation and concentrate thickening;
- Concentrate aeration and conventional stirred tank cyanide leaching; and
- Merrill-Crowe Ag-Au recovery.

Residual cyanide would be recovered with an acidification-volatization-recovery ("AVR") process.

Based on Gekko test results, in 2006, the AMEC flowsheet was modified to eliminate the following:

- Flotation concentrate thickening – pre-aeration, filtering;
- Conventional concentrate leaching;
- Merrill-Crowe ("MC") recovery; and
- Acid volatilization recovery of cyanide (AVR).

The following unit operations were added:

- Gravity circuit Gekko gravity jigs, a centrifugal concentrator line gravity pressure jig and concentrate regrind;

- Cleaner flotation.
- Gekko continuous ILR's (6-8 were purchased, 3 were installed);
- Counter current decantation ("CCD") washing of concentrate leach tailings with barren electrowinning ("EW") solution;
- Direct EW of Gekko clarified ILR leach solution;
- Gekko resin column, resin stripping and strip solution EW;
- Flotation tailings thickening; and
- Application of SO2-Air process to destroy cyanide in leach tailings slurry instead of AVR on the MC barren bleed solutions. Doré bars would be the final product.

10.3 Metallurgical Results

The initial installed unit processes included those attributed to the Gekko test results (reference SRK 2009). In summary, these were:

- 3-stage crushing to prepare 750 tpd of ball mill feed;
- Single stage ball mill grinding in closed circuit with cyclones;
- Gravity concentration of gold and silver from ball mill discharge;
- Sulphide-Ag-Au concentrate production by flotation;
- ILR leaching of concentrate, CCD of pregnant leach solution ("PLS"), solution clarification, EW and doré production; and
- Resin recovery of residual Au and Ag and SO2-air cyanide removal from barren solution.

Processes removed from the operation shortly after start-up included:

- Gravity circuit;
- Resin absorption system; and
- SO2-air cyanide destruction system (replaced with use of hydrogen peroxide).

Modifications included the installation of a second ball mill increasing tonnage capacity to 1,500 tpd. Consideration had been given (Gekko, 2008) in early 2008 to leach all of the concentrate instead of filtering, bagging, and shipping part of the concentrate (20% of concentrate was bagged in early 2008, the first full year of operations). Leaching all of the concentrate called for the installation of a total of 8 Gekko ILR's (3 had been installed) and an additional 7 Gekko EW cells. However, in spite of the acquisition and

warehousing of several additional ILR reactors, the strategy of splitting concentrate processing equally between ILR leaching and thickening/filtration/shipment was selected.

The Gekko testwork had indicated metal recoveries of 83% for Au and 87% for Ag. During the actual early operations (e.g. 2009), gold recoveries were similar, but silver was lower as shown in Table 10-1.

Table 10-1 – Overall Metallurgical Recovery

Year	Au (%)	Ag (%)	Notes
2008	83.29	82.34	
2009	83.31	83.78	Flotation recovery: Au 85.0, Ag 85.0

10.4 Metallurgical Performance Predictions

Due to the fact that the site is an operating mine, performance metallurgical performance predictors were not needed and were not determined due to having actual operating data in this regard.

11 MINERAL RESOURCE ESTIMATES

11.1 Data Used for Ore Grade Estimation

The information provided for the San José Mineral Resource Estimate consists of volumetric summaries, estimation parameters, drilling and sampling databases, block models, and de-surveyed composite files. All data were provided electronically in Excel spreadsheets or ASCII coma-separated-value text files. AutoCAD format dxf, triangulated wireframes defining vein shapes, depleted veins, and sub-domains as well as topographic surfaces were also provided. QA/QC data were not provided, and no production data or reconciliation information was made available for this review. Refer to Section 8 of this Technical Report for more information.

Hochschild supplied the sampling database for San José which contains 26,007 collar records, 219,404 valid gold composite records and 219,405 valid silver composite records. Industry standard validation checks were completed on the supplied database, which included checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields.

P&E noted a total of 403 zero-grade assays and recommends that data entries with a zero grade be re-examined. P&E noted no significant errors in the supplied database. This Technical Report authors consider that the sample database for San José is suitable for Mineral Resource estimation.

11.2 Resource Estimate Methodology, Assumptions and Parameters

11.2.1 Bulk Density

For San José, a global bulk density value per vein has been applied for volumetrics calculations, based on the median measured bulk density. P&E notes that the bulk density values are consistent with values used in previous Mineral Resource Estimates for San José and have been implemented correctly in the audited block models.

11.2.2 Wireframes

AutoCAD dxf format wireframes representing the San José veins were supplied by Hochschild, including unmined and mined vein models. The wireframe representations of mineralized veins have been constructed from drill hole intervals, survey data, mining excavations and visual examination of grades in

underground chip sample channels. P&E imported the Hochschild-supplied wireframes for several veins and validated the wireframes. P&E noted small validation errors in several wireframes associated with mined-out volumes due to complex triangulations. No other significant triangulation errors were noted.

11.2.3 Compositing

Hochschild supplied de-surveyed composite files for each vein. Each composite record contains midpoint coordinate values and a vein code, as well as composite length and capped composite Ag and Au grades. Composite grades were imported as points and visually checked for location relative to the appropriate block model. No significant composite errors were observed. P&E notes that the compositing method produces a non-uniform support size, and composite lengths range from 0.01 m to 27.67 m, with an average sample length of 1.03 m. This Technical Report authors recommend that Hochschild re-examine how it uses smaller residual composite samples during grade estimation.

11.2.4 Grade Capping

The influence of high-grade outliers has been restricted by capping assay grades above a threshold value prior to compositing. P&E verified the implementation of the selected capping levels for the composite files and block models. This Technical Report authors consider that the capping strategy as implemented by Hochschild meets industry standards for linear grade estimation.

11.2.5 Classification and Variography

San José Mineral Resources have been classified in accordance with the requirements of the CRIRSCO Definitions and the guidelines prepared by the Securities and Exchange Commission under the S-K §229.1300 to S-K §229.1305 regulations. Classification is based primarily on the number of drill hole or channel samples within the experimental semi-variogram ranges. At San José, an average of 7.9 composite samples per block has been used for Measured Mineral Resources. For Indicated Mineral Resources an average of 4.9 samples per block have been used, and for Inferred Mineral Resources an average of 2.7 samples per block have been used. Classification is assigned algorithmically, which generates a small number of locally incongruent blocks.

The Measured and Indicated Mineral Resources are confined to areas considered by local mine geologists to have a reasonable degree of geological confidence, and to Mineral Resource blocks within the wireframes. Outside of these areas, the Mineral Resource blocks are typically downgraded to Inferred Mineral Resources or are not reported.

P&E queried the Hochschild-supplied block models in order to verify the classification criteria used and found the results to be consistent with the methodology as described above. This Technical Report Summary authors consider that the classification scheme as implemented is compliant with S-K §229.1300 to S-K §229.1305 standards, however, notes that the use of a small number of samples combined with inconsistent compositing intervals may produce a local estimation bias. The authors also note that in some cases, Inferred Mineral Resource block grades may have been derived from a single sample.

11.3 Mineral Grade Estimation

Where there is sufficient information available to construct a variogram, Ordinary Kriging ("OK") is used for grade estimation. Where insufficient information is available to establish a variogram, Inverse Distance estimation is used, applying similar search criteria as that used for OK. Mineral Resource block model size and orientation are based on the general size and geometry of the vein. At San José, the block models are based on a 5 m x 5 m x 5 m or a 10 m x 10 m x 10 m block size. The two Saavedra Tajo Veins use a 2 m x 2 m x 2 m block size. A few selected veins have also been divided where appropriate into low and high-grade sub-domains for grade estimation.

The Mineral Resource models consist of separate block models by vein for Au and Ag estimated grades, diluted Au and Ag estimated grades, average interpolation distance, number of samples used for estimation, ore codes, percentage remaining ore, dilution factors, vein thickness, estimation variance, classification and geological confidence. A volumetrics check was generated by P&E using the supplied block models, matching the declared Mineral Resource Estimate dated December 2020.

Mineral Resources have been reported relative to an NSR value, the "valor de punto". Based on a silver price of US$20/oz and a gold price of US$1,800/oz, the cut-off value used for the audited 2020 Mineral Resources at San José is US$143.60/t. The choice of price points for both silver and gold are based on the marketing analysis undertaken by Hochschild staff in early 2020 as a continuing conservative approach to price forecasting and P&E confirms that Hochschild declares Mineral Resources at San José against a cut-off grade of 285 g/t AgEq. Although the pricing selected is not at the highest level of the forecasted pricing, it represents 95% of the 3-year average of the forecasted pricing for gold and 85% of the 3-year average for silver. The difference in the percentages for gold and silver are based on the price volatility portrayed over the 2021-2023 market demand as discussed in Chapter 19. The silver-equivalent grades and ounces are calculated using an 86:1 ratio .

11.3.1 Model Validation

For each vein, P&E reviewed and compared the summary statistics and distribution of the capped composite data and corresponding block model estimates. P&E notes that in general the estimated

grades are conservative in comparison to the composite grades and typically display an overall reduction in average grade.

P&E also compared average Nearest Neighbour grade and the average block model estimate for global bias for Measured and Indicated Mineral Resources (Table 11-1). This Technical Report authors recommend that the grade estimation criteria be reviewed for a total Mineral Resource where there is more than a 5% change between the average estimated grade and the average Nearest Neighbour grade.

P&E also examined swath plots for selected veins oriented along strike. None of the veins examined suggest the presence of a local estimation bias; however, this may be due to the small number of samples used for grade estimation.

As an additional check of the Mineral Resource base, P&E has compared the calculated volume of the total Mineral Resource estimated per vein at zero-grade cut-off and the theoretical geometric volume of the Hochschild-supplied vein wireframes. Observed differences in volumes are attributed to the delineation of portions of the veins considered as geologically risky, as well as strict restrictions on search ranges used during estimation resulting in a small number of un-estimated blocks within the defined wireframe. P&E notes that the actual wireframe representations are not used directly for the calculation of vein widths or dilution.

Table 11-1 – Comparison Between Average Block Estimate And Nearest Neighbour Grade For Measured And Indicated Mineral Resources

COMPARISON BETWEEN AVERAGE BLOCK ESTIMATE AND NEAREST NEIGHBOUR GRADE FOR MEASURED AND INDICATED MINERAL RESOURCES						
Vein	Au Block Average g/t	Ag Block Average g/t	Au g/t NN	Ag g/t NN	Au % Difference	Ag % Difference
290	13.96	313	14.37	300	3	-4
425a	1.19	39	1.92	56	38	29
861a	6.44	478	6.17	438	-4	-9
861b	9.54	255	9.83	252	3	-1
861c	9.60	723	8.95	664	-7	-9
861f	1.29	154	1.33	160	3	3
861i	3.78	382	3.52	353	-7	-8
861v	4.90	378	5.26	376	7	-1
861w	6.18	689	6.41	740	4	7
Abr	4.12	324	4.01	304	-3	-7
Anto	9.00	217	9.10	230	1	6
Ayl	6.05	404	6.15	397	2	-2
Chi	3.16	67	3.24	72	3	7
Eayl	8.66	755	7.91	711	-10	-6
Eli	1.17	143	1.43	177	19	19
Fati	2.08	63	1.98	61	-5	-3
Frea	5.85	265	6.41	285	9	7
Frod	0.52	42	0.76	61	32	32
Giut	4.73	559	4.73	560	0	0
Hvc	2.85	242	2.76	256	-3	6
Hvn	2.42	197	2.70	216	10	9
Hvs	9.44	625	9.90	632	5	1
Kosp	8.06	638	7.43	575	-8	-11
Kse	4.25	162	3.91	163	-9	1
Kse1	2.31	99	2.59	113	11	12
LulN	1.44	150	1.92	185	25	19
LulS	10.60	1063	10.27	1036	-3	-3
Mara	2.48	189	2.80	205	11	8
Marc	5.02	190	7.12	289	30	34
Mcle	3.54	239	3.34	227	-6	-6
Mclw	9.32	496	9.28	507	0	2
Moll	8.57	652	7.91	611	-8	-7
Mora	4.01	325	3.82	291	-5	-12
Mrt	1.34	79	1.58	93	16	15
Noel	1.29	92	1.48	105	12	12

COMPARISON BETWEEN AVERAGE BLOCK ESTIMATE AND NEAREST NEIGHBOUR GRADE FOR MEASURED AND INDICATED MINERAL RESOURCES						
Vein	Au Block Average g/t	Ag Block Average g/t	Au g/t NN	Ag g/t NN	Au % Difference	Ag % Difference
Odi	4.84	287	4.52	269	-7	-7
Or1	2.80	722	2.74	701	-2	-3
Or4	0.67	228	0.68	228	1	0
Palo	0.42	43	0.45	46	7	7
Patr	2.17	212	2.03	202	-7	-5
Pch	2.50	188	2.50	190	0	1
Perl	1.94	147	2.22	156	13	5
Pied	1.65	152	1.61	150	-2	-1
Pil	5.05	236	5.25	260	4	9
R425	4.41	539	4.52	521	3	-3
R483	2.82	240	2.86	239	1	0
R581	7.79	1065	7.62	1029	-2	-3
Rayl	3.05	291	2.82	278	-8	-5
Rf45	1.02	153	1.05	160	3	5
Rfr	4.17	297	4.12	291	-1	-2
Rhna	2.12	168	2.23	178	5	5
Rhnb	2.94	213	3.51	245	16	13
Rhnc	1.64	160	2.19	199	25	19
Rhnd	9.05	804	9.26	751	2	-7
Rhne	2.70	190	3.13	228	14	17
Rhni	1.33	56	1.51	74	12	24
Rhnj	2.79	209	2.92	202	5	-4
Rhnk	4.02	286	4.58	365	12	22
Rhnl	15.97	826	15.72	591	-2	-40
Rhvn	2.21	192	2.21	208	0	8
Rhvs	3.08	263	3.33	287	8	9
Rkb1	18.38	255	17.55	236	-5	-8
Rksp	2.06	57	2.16	61	5	7
Rlu	2.20	221	2.33	228	6	3
Rnoe	4.17	227	4.45	258	6	12
S290	11.40	192	10.87	180	-5	-7
Sara	2.75	338	3.34	399	18	15
Sglu	10.87	970	10.25	879	-6	-10
Shl	4.65	510	5.01	548	7	7
Slu3	6.42	705	7.21	786	11	10

COMPARISON BETWEEN AVERAGE BLOCK ESTIMATE AND NEAREST NEIGHBOUR GRADE FOR MEASURED AND INDICATED MINERAL RESOURCES						
Vein	Au Block Average g/t	Ag Block Average g/t	Au g/t NN	Ag g/t NN	Au % Difference	Ag % Difference
Slu4	11.55	1206	10.60	1058	-9	-14
Smar	4.74	194	4.26	186	-11	-4
Snsn	2.86	530	3.02	562	5	6
Ssha	4.94	678	5.12	712	4	5
Tew	6.54	115	6.70	120	2	4
Ula	1.34	142	1.66	176	20	19

11.4 Mineral Resource Classification

Mineral Resources at San José currently consist of 115 identified veins. Total Mineral Resources declared by Hochschild for San José, as of December 25, 2020, include 7.9 Moz silver-equivalent ("AgEq") Measured and Indicated Mineral Resources and 49.4 Moz AgEq Inferred Mineral Resources (Table 11-2). Based on a silver price of US$20/oz and a gold price of US$1,800/oz, the cut-off grade used for Mineral Resource reporting is 285 g/t AgEq which is the economic cut-off from the Mineral Reserves calculation which is keeping with the past practice of conservative Mineral Resource estimating.

Table 11-2 – Mineral Resource Estimate as of December 25, 2020 [1-10]

Mineral Resources				
Date:	December 25, 2020	Based on:	Ag=$20/oz, Au=$1800/oz	
Classification	Tonnes (k)	Grades Ag g/t Au g/t AgEq g/t	AgEq Cut-off grades	Metallurgical recovery
Measured	209	355 / 5.07 / 791	285	90.0% Au, 89.9% Ag
Indicated	145	260 / 3.33 / 546	285	90.0% Au, 89.9% Ag
Meas & Ind	354	316 / 4.36 / 691	285	90.0% Au, 89.9% Ag
Inferred	1,861	345 / 5.58 / 825	285	90.0% Au, 89.9% Ag

1) Mineral Resources are 100% attributable to property. McEwen Mining has a 49% interest in San José.
2) Mineral Resources are exclusive of Mineral Reserves.
3) The Mineral Resource was estimated by Hochschild and audited by Fred Brown, P.Geo. consultant of P&E Mining Consultants Inc., Qualified Person under S-K §229.1302 who assumes responsibility.
4) Mineral Resources do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
5) The Inferred Mineral Resource in this estimate has a lower level of confidence that applied to an Indicated Mineral Resource and is not converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
6) Numbers in the table might not add precisely due to rounding.
7) The Mineral Resource is depleted for previous mining activity.
8) The silver equivalent (AgEq)= (gold x 86) + silver.

9) The Mineral Resource is based on a silver price of US$20/oz and a gold price of US$1,800/oz, the cut-off grade used for Mineral Resource reporting is 285 g/t AgEq.
10) The Mineral Resources in this report were estimated and reporting using the regulation S-K §229.1304 of the United States Securities and Exchange Commission ("SEC").

The audit of the Mineral Resources was carried out by Fred Brown, P.Geo., under the direction of Eugene Puritch, P.Eng. Both persons are considered Qualified Persons under S-K 1300 §229.1302. The December 2020 Mineral Resource is based on the December 25, 2020 reported and audited Mineral Resource.

A 3-D schematic view of the San José Veins is presented in Figure 11-1.

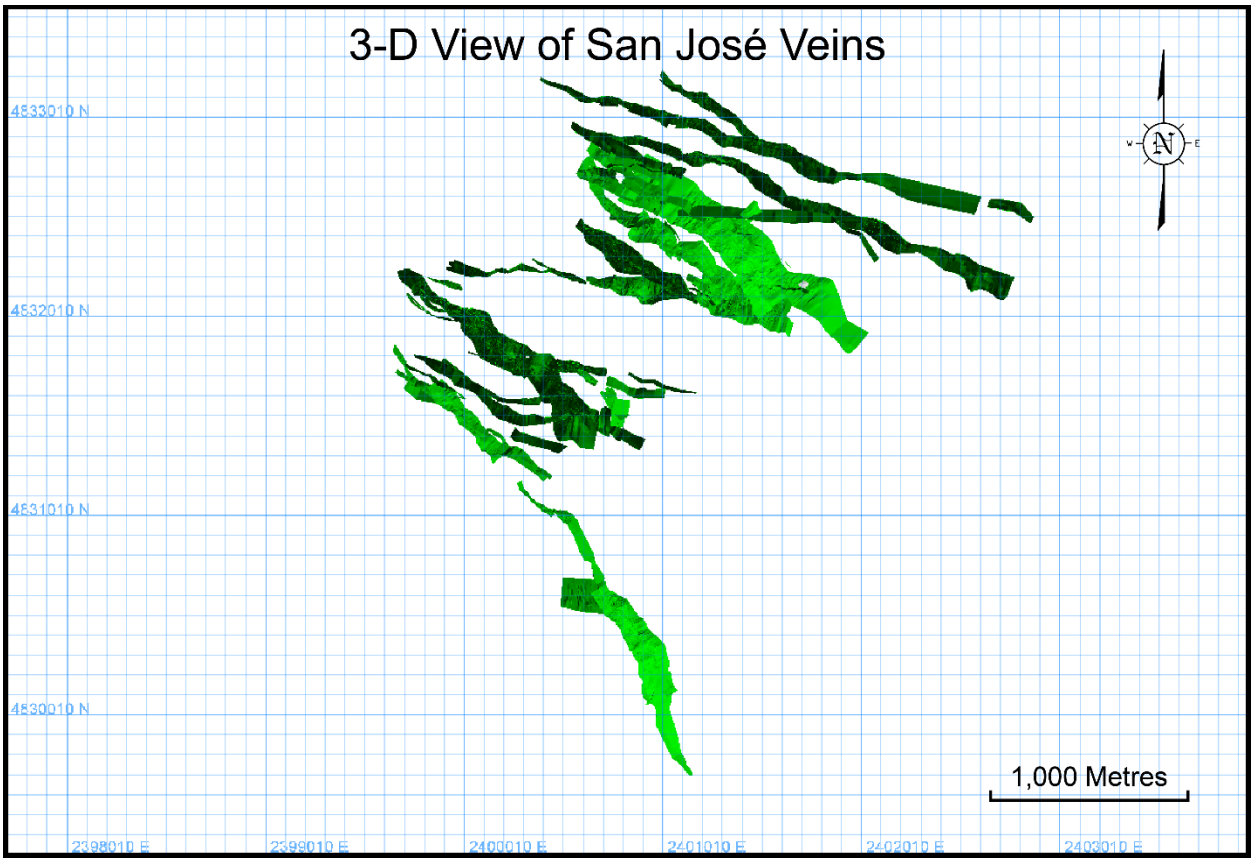

Figure 11-1 – 3-D View of San José Veins – Source: P&E Consultants (2020)

11.5 Potential Risks in Developing the Mineral Resource

Due to the fact that San José is a producing mine, there are moderate to low risk to continuing development of the mineral resource at the site as follows in Table 11-3:

Table 11-3 – Risks by Category

Risk Category	Explanation	Risk
Geology	Uncertainty in geological interpretation may affect mineral estimates in areas that have not been mined.	Moderate
Estimation	Bulk Density: bulk density is assigned on a vein basis, based on the median measured bulk density. Local variations in density may affect tonnage results.	Low
	Compositing: Hochschild composite data retains small assay intervals. This can lead to a local estimation bias.	Low
	Outlier Management: grade capping is used to limit the influence of anomalous high-grade samples on a vein basis. Local grade trends may therefore be biased.	Low
	Minimum width: Hochschild dilutes block grades where appropriate if the vein width is less than a critical threshold (generally 0.80 m). The selected minimum mining thickness may be somewhat over-optimistic.	Low
	Classification: classification is assigned algorithmically based on the number of samples within the search ellipse. This may create a small number of locally incongruent block classifications.	Low
	An absolute minimum of 3 samples is required for Measured mineral resources, and 2 samples for Indicated mineral resources. This may create a small number of blocks that are inappropriately classified.	Low
	Estimation Strategy: Ordinary Kriging is used where a reasonable variogram can be modeled. Inverse Distance Cubed estimation is used where a reasonable variogram cannot be modeled. Differences in methodology may create a small number of incongruous estimates.	Low
Sampling Methods	In areas of active mining channel samples predominate, which can adversely affect local grade estimates depending on the quality of underground sampling.	Low
Data	Data Management: all information is stored in a proprietary SQL database. Mineral resources are calculated for each vein in MineSight. Small database errors may contribute to estimation errors.	Low
Reconciliation	Detailed block model reconciliation is not carried out on a routine basis and makes identification of critical errors in the models difficult.	Moderate

11.6 Conclusion

The qualified person for this Individual Technical Report Summary considers the Mineral Resource Estimate block model and Mineral Resource classification reported by Hochschild to represent a reasonable estimation of the total Mineral Resources for the San José Property with regard to compliance with: generally accepted industry standards and guidelines; the methodology used for grade estimation; the classification criteria used; and the actual implementation of the methodology in terms of Mineral Resource estimation and reporting.

The Mineral Resources reported by Hochschild have been estimated to conform with the requirements of the CRIRSCO Definitions in addition to the guidelines prepared by the Securities and Exchange Commission under the S-K §229.1300 to S-K §229.1305 regulations. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

12 MINERAL RESERVES ESTIMATES

12.1 Reserve Estimate Methodology, Assumptions, Parameters and Cut-off-Value

At San José, the Proven and Probable Mineral Reserves are based on an Economic Cut-off Value ("ECOV") of $232.20/t and a Marginal Cut-off Value ("MCOV") of $115.00/t, using prices of US$1,800/oz for gold and US$20.00/oz for silver. Although the pricing selected is not at the highest level of the forecasted pricing, it represents 95% of the 3-year average of the forecasted pricing for gold and 85% of the 3-year average for silver. The difference in the percentages for gold and silver are based on the price volatility portrayed over the 2021-2023 market demand as discussed in Chapter 19. The Mineral Reserves consider marginal blocks of ore located within or on the periphery of higher-grade zones. The MCOV was defined by the value of ore that meets the variable costs, but not the fixed costs. The Mineral Reserve COV is based on historical October 2019 to September 2020 geologic, mining, plant and mine administration variable and fixed costs. The ECOV was estimated using both variable and fixed costs and the MCOV was estimated using variable costs only. The Mineral Reserve Estimate is primarily based on the ECOV. Ore with a grade above the MCOV and less than the ECOV are included in the Mineral Reserve Estimate if it was necessary to develop through them in order to access ore grades above the ECOV. A total of 79% of Mineral Reserves are at or above the ECOV and 21% of Mineral Reserves are between the ECOV and the MCOV. The economic and marginal cut-offs used to estimate San José's Mineral Reserves are 461 g/t AgEq and 228 g/t AgEq, respectively.

A summary of average variable and fixed operating costs is presented in Table 12-1.

Table 12-1 – Variable and Fixed Operating Costs from October 2019 to September 2020

Period	Fixed Costs (US$/t)	Variable Costs (US$/t)	Variable & Fixed (US$/t)
Oct - Mar	$142.73	$130.50	$273.22
Nov - Apr	$144.34	$149.48	$293.82
Dec - May	$141.23	$146.05	$287.28
Jan – Jun	$139.30	$141.30	$280.59
Feb – Jul	$131.82	$137.66	$269.49
Mar – Aug	$96.10	$113.78	$209.88
Apr – Sept	$86.83	$106.37	$193.20
Average of Last 3	$104.90	$119.30	$224.20

HOC used an average US$224.20/t variable and fixed cost to estimate the ECOV. The US$119.30/t variable cost was subdivided into 85% mechanized cut and fill mining and 15% semi-mechanized cut and fill mining. These variable cost estimates are summarized in Table 12-2.

These variable costs are used to estimate the MCOV's. HOC has included an allowance of US$8.00/t in the ECOV as an adjustment based on the estimated 2019 / 2020 operating costs. Thus, the ECOV, and the Mechanized Cut & Fill (CRM) and Semi-mechanized Cut & Fill (CRSM) MCOV's are US$232.20/t, US$115.00 and US$143.60/t, respectively, as summarized in Table 12-3.

Hochschild estimates the NSR value for Ag and Au to be US$0.5033/g and US$46.2159/g head grade, respectively, based on a gold price of US$1,800/oz and a silver price of US$20.00/oz. Thus, the economic and marginal cut-offs used to estimate Mineral Reserves are 461 g/t and 285 g/t AgEq, respectively summarized in Table 12-4.

Table 12-2 – Variable Operating Costs from October 2019 to September 2020

Mining Method	% of Total	Average (US$/t)	US$/t
Mechanized Cut & Fill (CRM)	85%	$119.30	$115.00
Semi-mechanized Cut & Fill (CRSM)	15%	$119.30	$143.60
Average Variable Cost			**$119.30**

Table 12-3 – Summary of Marginal and Economic Cut-off Values (US$/t)

Description	Variable Costs	Fixed Costs	Subtotal	2020 Adjustment	Cut-off
Marginal CRM Cut-off	$115.00	$0.00	$115.00	$0.00	$115.00
Marginal CRSM Cut-off	$143.60	$0.00	$143.60	$0.00	$143.60
Economic Cut-off	$104.90	$119.30	$224.20	$8.00	$232.20

Table 12-4 – San José Economic Parameters

Item	Silver	Gold
Price US$/oz	$20.00	$1,800.00
NSR value US$/g	$0.5033	$46.2159
Marginal CRM Cut-off US$/t	$115.00	
Marginal CRM Cut-off AgEq (g/t)	228	
Marginal CRSM Cut-off US$/t	$143.60	
Marginal CRSM Cut-off AgEq (g/t)	285	
Economic Cut-off US$/t	$232.20	
Economic Cut-off AgEq (g/t)	461	

12.2 Mine and Plant Production Scenarios

As San José is a producing mine, the inclusion of alternative mine production scenarios was not required.

12.3 Mineral Reserve Estimate

The methodology used by Hochschild to convert Mineral Resources to Mineral Reserves is as follows, in sequential order.

Based on the physical location of Mineral Resources and mining method selected, 2,398,000 t (approximately 87%) of Measured and Indicated Mineral Resources at 446 g/t Ag and 7.49 g/t Au, were considered for conversion to Mineral Reserves. These Mineral Resources do not include dilution and excludes mining losses. The balance of Measured and Indicated Mineral Resources, (i.e. 353,600 t at 316 g/t Ag and 4.36 g/t Au), were not considered for conversion to Mineral Reserves.

These Measured and Indicated Mineral Resources, selected above, are diluted to a minimum 0.8 m thickness. Within the 3-D boundaries of this 0.8 m thickness there is some low-grade material that must be mined based on the mine plan and design. This low-grade material is referred to as Total Internal Dilution totalling 239,700 t and grading 82 g/t Ag and 1.32 g/t Au. A total of 284,600 t, grading 440 g/t Ag and 7.91 g/t Au, of these Measured and Indicated internally diluted Mineral Resources will be excluded from conversion to Mineral Reserves due to fact that these Mineral Resources have no development in the area.

Mine recovery of the internally diluted Measured and Indicated Mineral Resources is calculated, based on the mine plan and design. There are a total 2,353,100 t of diluted Measured and Indicated Mineral Resources at 410 g/t Ag and 6.81 g/t Au before Mine Recovery Losses. Mine recovery losses at the San José Mine include inaccessible Mineral Resources, mined out / isolated Mineral Resources, Mineral Resources tied up in development pillars, operationally lost Mineral Resources, and uneconomic Mineral Resources. Mineral Resources that will not be recovered are:

- 639,100 t of inaccessible Mineral Resources grading 215 g/t Ag and 3.91 g/t Au;
- 497,000 t of Mineral Resources in mined out / isolated areas grading 311 g/t Ag and 5.23 g/t Au;
- 461,100 t of Mineral Resources tied up in development pillars grading 545 g/t Ag and 8.79 g/t Au;
- 34,600 t of operationally lost Mineral Resources, grading 568 g/t Ag and 9.43 g/t Au and;
- 20,100 t of uneconomic Mineral Resources grading 92 g/t Ag and 2.19 g/t Au.

A total of 1,651,900 t Mineral Resources grading 342 g/t Ag and 5.76 g/t Au will not be recovered. Removing the internally diluted Mineral Resources that are not recovered from the 2,353,100 t of diluted Mineral Resources results in a total of 701,200 t of internally diluted Measured and Indicated Mineral Resources, grading 570 g/t Ag and 9.28 g/t Au, that will be recovered (extracted). Consequently, a total of 30% of internally diluted Mineral Resources can be extracted containing 41% of the internally diluted contained silver and 41% of the internally diluted contained gold. The percentage of internally diluted Mineral Resources that can be extracted is referred to elsewhere in this report as “mine extraction” or “mine recovery”. A summary of mine recovery (extraction) is presented in Table 12-5.

Table 12-5 – San José Internally Diluted Recovered Mineral Resources

Vein	Total Recovered			Recovery (%)		
	Tonnes	Ag (g/t)	Au (g/t)	Tonnes (%)	Contained Ag %	Contained Au %
Ramal 483	754	647	10.54	12.6%	24.6%	37.7%
Ramal 793	796	1,864	18.51	43.8%	40.2%	39.4%
Ramal 861A	11,512	450	7.82	57.7%	46.3%	55.5%
Ramal 861B	3,753	264	9.55	32.0%	37.5%	39.3%
Ramal 861V	1,043	438	4.73	9.5%	8.0%	6.5%
Ramal Ayelen	12,374	514	6.31	30.3%	30.1%	28.6%
Ramal Frea	12,452	412	5.64	13.7%	14.4%	16.0%
Ramal HVN	8,192	412	7.13	31.5%	29.8%	38.2%
Ramal HVND	5,876	694	7.82	54.7%	51.4%	52.6%
Ramal HVNE	3,743	249	2.98	36.1%	37.4%	34.1%
Ramal HVNL	487	1,067	12.01	32.8%	45.8%	38.5%
Ramal Noel	5,731	199	4.39	75.8%	67.2%	64.6%
Sigmoide 251	1,770	365	18.75	82.1%	81.4%	76.7%
Sigmoide Luli	11,970	1,002	12.55	34.9%	43.5%	44.8%
Sigmoide Luli03	8,520	574	4.08	62.4%	77.9%	71.9%
Tensional EW	37,898	150	8.29	61.6%	68.9%	68.2%
Tensional Perla	27,186	601	8.01	76.8%	81.2%	79.9%
Veta 290	30,431	467	20.17	62.7%	64.2%	63.5%
Veta Abril	3,382	423	6.34	26.4%	41.0%	42.9%
Veta Antonella	22,953	333	9.66	38.3%	52.6%	40.6%
Veta Ayelen	17,888	410	5.13	41.4%	41.8%	36.2%
Veta Delfina	14,205	417	6.19	57.2%	63.1%	61.4%
Veta Extension Ayelen	39,253	768	9.11	64.2%	70.7%	70.1%
Veta Fatima	4,736	275	9.41	71.7%	72.8%	70.4%
Veta Frea	11,347	197	9.48	19.2%	15.3%	22.8%
Veta Giulieta	3,977	994	8.91	21.5%	23.8%	24.0%
Veta HVN	83,291	446	4.63	60.0%	69.9%	62.7%
Veta HVC	6,497	707	8.61	60.7%	66.8%	63.7%
Veta HVS	10,037	1,094	17.57	27.4%	49.6%	46.1%
Veta Kospi	46,548	1,276	17.76	33.3%	48.4%	44.6%
Veta KospiSE	7,363	627	15.83	60.6%	65.8%	64.9%
Veta KospiSE01	4,018	326	7.12	41.0%	46.3%	44.4%
Veta Luli Sur	17,675	620	6.61	33.4%	32.9%	34.2%
Veta Mara	2,400	604	7.11	73.9%	81.5%	78.2%
Veta Marcia	1,534	220	6.52	32.5%	32.3%	33.3%
Veta Micaela E	24,734	248	5.12	25.1%	24.2%	30.0%
Veta Micaela W	16,827	652	14.19	68.6%	80.3%	77.8%
Veta Molle	34,274	1,092	15.01	53.9%	63.4%	66.8%

Vein	Total Recovered			Recovery (%)		
	Tonnes	Ag (g/t)	Au (g/t)	Tonnes (%)	Contained Ag %	Contained Au %
Veta Odin	121,030	501	8.41	28.1%	48.8%	41.9%
Veta Pilar	11,310	190	3.92	7.9%	8.1%	6.9%
Veta Sanson	6,680	676	3.76	56.1%	52.1%	53.5%
Veta Sara	4,762	624	5.32	97.0%	97.0%	97.0%
Total / Average	**701,204**	**570**	**9.28**	**29.8%**	**41.4%**	**40.6%**

Note: Table 12-5 represents 100% of the San José Property. McEwen Mining has a 49% attributable interest in the San José Property.

Within the area of the extractable, externally undiluted Measured and Indicated Mineral Resources used in the Mineral Reserve estimation, there is an estimated 43,300 t of Mineral Reserve internal dilution grading 74 g/t Ag and 1.15 g/t Au. This represents an internal dilution of 6.6%, 0.8% and 0.8% by tonnes, contained silver and contained gold, respectively. A summary of this estimate by vein is presented in Table 12-6.

Table 12-6 – San José Extractable Measured and Indicated Mineral Resources Mineral Reserve Internal Dilution Estimation

Vein	Tonnes	Ag (g/t)	Au (g/t)	Tonnes (%)	Contained Ag (%)	Contained Au (%)
Ramal 483	51	89	1.54	7.3%	0.9%	1.0%
Ramal 861A	240	90	1.03	2.1%	0.4%	0.3%
Ramal 861B	0	19	1.34	0.0%	0.0%	0.0%
Ramal 861V	272	78	0.63	35.4%	4.9%	3.6%
Ramal Ayelen	355	77	1.18	3.0%	0.4%	0.5%
Ramal Frea	776	124	1.25	6.6%	1.9%	1.4%
Ramal HVN	1,178	75	0.84	16.8%	2.7%	1.7%
Ramal HVND	499	73	0.69	9.3%	0.9%	0.8%
Ramal HVNE	288	61	1.07	8.3%	1.9%	2.8%
Ramal Noel	718	97	1.62	14.3%	6.5%	4.9%
Sigmoide 251	333	73	1.37	23.2%	3.9%	1.4%
Sigmoide Luli	559	58	0.89	4.9%	0.3%	0.3%
Sig. Luli03	769	97	0.85	9.9%	1.6%	1.9%
Tensional EW	2,149	23	2.06	6.0%	0.9%	1.4%
Tensional Perla	2,440	97	1.25	9.9%	1.5%	1.4%
Veta 290	591	18	0.59	2.0%	0.1%	0.1%
Veta Abril	0	33	0.46	0.0%	0.0%	0.0%
Veta Antonella	456	55	1.28	2.0%	0.3%	0.3%
Veta Ayelen	1,189	88	0.70	7.1%	1.5%	0.9%
Veta Delfina	657	101	1.39	4.9%	1.1%	1.1%
Veta Ex. Ayelen	2,156	70	0.89	5.8%	0.5%	0.5%
Veta Fatima	311	36	0.74	7.0%	0.9%	0.5%
Veta Frea	312	31	1.10	2.8%	0.4%	0.3%
Veta Giulieta	448	66	0.98	12.7%	0.8%	1.2%
Veta HVN	9,610	70	1.11	13.0%	1.8%	2.8%
Veta HVC	297	55	0.67	4.8%	0.4%	0.4%
Veta HVS	340	97	1.75	3.5%	0.3%	0.3%
Veta Kospi	3,036	54	0.69	7.0%	0.3%	0.3%
Veta KospiSE	468	45	1.09	6.8%	0.5%	0.4%
V. KospiSE01	438	34	1.70	12.2%	1.1%	2.7%
Veta Luli Sur	3	24	0.41	0.0%	0.0%	0.0%
Veta Mara	51	64	0.79	2.2%	0.2%	0.2%
Veta Marcia	54	47	1.47	3.7%	0.8%	0.8%
Veta Micaela E	2,154	44	1.60	9.5%	1.6%	2.8%
Veta Micaela W	369	81	0.97	2.2%	0.3%	0.1%
Veta Molle	935	69	1.11	2.8%	0.2%	0.2%
Veta Odin	5,800	96	1.13	5.0%	0.9%	0.7%
Veta Pilar	1,207	93	1.95	11.9%	5.5%	5.6%
Veta Sanson	1,131	118	0.80	20.4%	3.0%	3.7%
Veta Sara	639	111	0.92	15.5%	2.4%	2.4%
Total / Average	**43,280**	**74**	**1.15**	**6.6%**	**0.8%**	**0.8%**

Note: Table 12-6 represents 100% of the San José Property. McEwen Mining has a 49% attributable interest in the San José Property.

The 701,200 t of extractable Mineral Resources will be externally diluted by 301,100 t of material at zero grade, averaging 43% external dilution. This external dilution includes slough and blasted waste rock from both the hanging walls and footwalls, mined backfill, and development waste sent to the processing plant. A summary of this external dilution is presented in Table 12-7

Mineral Reserves, which include extractable Mineral Resources and external dilution, total 1,0013,300 t at 398 g/t Ag and 6.51 g/t Au and are summarized by vein in Table 12-8.

The Mineral Reserves of 1,0013,300 t at 398 g/t Ag and 6.51 g/t Au are further classified into Proven Mineral Reserves totalling 826,100 t at 408 g/t Ag and 6.75 g/t Au, and Probable Mineral Reserves totalling 187,200 t at 354 g/t Ag and 5.46 g/t Au. A summary of Proven and Probable Mineral Reserves is presented in Table 12-9.

A summary of the 1,0013,300 t of economic and marginal Mineral Reserves is presented in Table 12-10. Economic Mineral Reserves are 801,500 t grading 464 g/t Ag and 7.59 g/t Au and marginal Mineral Reserves are 211,800 t grading 146 g/t Ag and 2.41 g/t Au for the San José Mine.

In summary, for the San José Mine there is an average 7% Mineral Reserve internal dilution on Mineral Resources that are converted to Mineral Reserves. Of the internally diluted Mineral Resources, 30% are recovered extractable, and a 43% external dilution was added to these Mineral Resources, at zero grade.

Mineral Reserves were estimated from selected diluted and extracted Measured and Indicated Mineral Resources. As of December 25, 2020, Proven and Probable Mineral Reserves totaled 1,0013,300 t at 398 g/t Ag and 6.51 g/t Au. A summary of these Mineral Reserves is presented in Table 12-11.

Table 12-7 – San José External Dilution Included in Mineral Reserves

Vein	Tonnes	Extracted Mineral Resources
Ramal 483	257	34.2%
Ramal 793	601	75.5%
Ramal 861A	4,957	43.1%
Ramal 861B	2,648	70.6%
Ramal 861V	1,113	106.7%
Ramal Ayelen	8,152	65.9%
Ramal Frea	3,434	27.6%
Ramal HVN	3,185	38.9%
Ramal HVND	3,492	59.4%
Ramal HVNE	1,951	52.1%
Ramal HVNL	122	25.0%
Ramal Noel	4,175	72.9%
Sigmoide 251	1,009	57.0%
Sigmoide Luli	6,236	52.1%
Sigmoide Luli03	4,503	52.8%
Tensional EW	19,979	52.7%
Tensional Perla	10,068	37.0%
Veta 290	10,158	33.4%
Veta Abril	845	25.0%
Veta Antonella	9,412	41.0%
Veta Ayelen	9,434	52.7%
Veta Delfina	7,306	51.4%
Veta Extension Ayelen	13,885	35.4%
Veta Fatima	1,699	35.9%
Veta Frea	5,143	45.3%
Veta Giulieta	2,278	57.3%
Veta HVN	26,506	31.8%
Veta HVC	3,151	48.5%
Veta HVS	4,514	45.0%
Veta Kospi	16,800	36.1%
Veta KospiSE	2,297	31.2%
Veta KospiSE01	2,027	50.4%
Veta Luli Sur	4,912	27.8%
Veta Mara	1,446	60.2%
Veta Marcia	990	64.6%
Veta Micaela E	9,249	37.4%
Veta Micaela W	14,249	84.7%
Veta Molle	12,166	35.5%
Veta Odin	53,854	44.5%
Veta Pilar	8,011	70.8%
Veta Sanson	2,564	38.4%
Veta Sara	2,292	48.1%
Total / Average	**301,068**	**42.9%**

Note: Table 12-7 represents 100% of the San José Property. McEwen Mining has a 49% attributable interest in the San José Property.

Table 12-8 – San José Mineral Reserves as of December 25, 2020

Vein	Tonnes	Ag (g/t)	Au (g/t)
Ramal 483	1,011	482	7.86
Ramal 793	1,397	1,062	10.55
Ramal 861A	16,469	315	5.47
Ramal 861B	6,401	155	5.60
Ramal 861V	2,156	212	2.29
Ramal Ayelen	20,526	310	3.81
Ramal Frea	15,886	323	4.42
Ramal HVN	11,378	297	5.14
Ramal HVND	9,367	435	4.91
Ramal HVNE	5,694	164	1.96
Ramal HVNL	608	854	9.61
Ramal Noel	9,906	115	2.54
Sigmoide 251	2,779	233	11.94
Sigmoide Luli	18,206	659	8.25
Sigmoide Luli03	13,023	376	2.67
Tensional EW	57,877	98	5.43
Tensional Perla	37,253	438	5.85
Veta 290	40,588	350	15.12
Veta Abril	4,227	338	5.07
Veta Antonella	32,365	236	6.85
Veta Ayelen	27,322	268	3.36
Veta Delfina	21,511	275	4.09
Veta Extension Ayelen	53,138	568	6.73
Veta Fatima	6,435	202	6.92
Veta Frea	16,490	136	6.52
Veta Giulieta	6,255	632	5.66
Veta HVN	109,798	338	3.51
Veta HVC	9,647	476	5.80
Veta HVS	14,551	755	12.12
Veta Kospi	63,348	937	13.05
Veta KospiSE	9,659	478	12.07
Veta KospiSE01	6,044	216	4.73
Veta Luli Sur	22,586	485	5.17
Veta Mara	3,846	377	4.44
Veta Marcia	2,524	134	3.96
Veta Micaela E	33,982	180	3.73
Veta Micaela W	31,076	353	7.69
Veta Molle	46,440	806	11.08
Veta Odin	174,884	347	5.82
Veta Pilar	19,321	111	2.29
Veta Sanson	9,244	489	2.72
Veta Sara	7,054	421	3.59
Stockpile	11,000	336	8.00
Total / Average	**1,013,272**	**398**	**6.51**

Note: Table 12-8 represents 100% of the San José Property. McEwen Mining has a 49% attributable interest in the San José Property.

Table 12-9 – San José Proven and Probable Mineral Reserves as of December 25, 2020

Vein	Proven Mineral Reserves			Probable Mineral Reserves		
	Tonnes	Ag (g/t)	Au (g/t)	Tonnes	Ag (g/t)	Au (g/t)
Ramal 483	1,011	482	7.86			
Ramal 793	695	930	9.18	702	1,193	11.90
Ramal 861A	10,097	403	5.71	6,372	176	5.08
Ramal 861B	5,121	174	5.90	1,280	77	4.40
Ramal 861V	2,156	212	2.29			
Ramal Ayelen	11,073	338	4.37	9,453	277	3.14
Ramal Frea	14,932	328	4.55	954	241	2.50
Ramal HVN	10,669	314	5.44	708	44	0.49
Ramal HVND	6,506	459	5.14	2,861	381	4.36
Ramal HVNE	4,560	179	1.97	1,134	104	1.91
Ramal HVNL	608	854	9.61			
Ramal Noel	9,748	116	2.56	158	71	1.10
Sigmoide 251	16	509	29.18	2,763	231	11.84
Sigmoide Luli	14,344	746	9.60	3,862	336	3.26
Sigmoide Luli03	8,135	361	2.72	4,887	400	2.59
Tensional EW	29,480	91	5.82	28,397	105	5.02
Tensional Perla	11,955	481	6.78	25,298	418	5.41
Veta 290	40,105	352	15.20	483	179	8.46
Veta Abril	3,642	364	5.37	585	175	3.23
Veta Antonella	30,037	230	6.96	2,328	318	5.49
Veta Ayelen	17,744	289	3.30	9,578	230	3.46
Veta Delfina	8,498	288	4.38	13,013	267	3.90
Veta Extension Ayelen	52,636	568	6.72	502	492	7.32
Veta Fatima	2,294	171	3.96	4,141	220	8.57
Veta Frea	9,955	93	7.41	6,534	200	5.17
Veta Giulieta	6,253	632	5.67	2	22	0.66
Veta Huevos Verdes Norte	98,480	337	3.76	11,318	353	1.34
Veta HVC	9,291	494	6.01	356	3	0.11
Veta HVS	14,530	748	12.00	21	5,397	95.55
Veta Kospi	47,255	870	12.23	16,093	1,134	15.45
Veta KospiSE	8,407	472	12.05	1,253	518	12.17
Veta KospiSE01	5,903	221	4.82	141	13	0.98
Veta Luli Sur	22,586	485	5.17			
Veta Mara	2,279	330	3.68	1,567	445	5.54
Veta Marcia	2,414	137	3.98	109	65	3.63
Veta Micaela E	31,316	181	3.80	2,666	173	2.81
Veta Micaela W	29,963	317	6.82	1,113	1,308	30.89
Veta Molle	46,055	812	11.16	385	51	1.44
Veta Odin	156,356	358	6.16	18,528	250	2.95
Veta Pilar	19,069	112	2.30	252	93	1.69
Veta Sanson	8,938	477	2.65	305	829	4.63
Veta Sara				7,054	421	3.59
Stockpile	11,002	336	8.00			
Total / Average	**826,116**	**408**	**6.75**	**187,157**	**354**	**5.46**

Note: Table 12-9 represents 100% of the San José Property. McEwen Mining has a 49% attributable interest in the San José Property.

Table 12-10 – San José Economic and Marginal Mineral Reserves as of December 25, 2020

Vein	Economic Mineral Reserves			Marginal Mineral Reserves		
	Tonnes	Ag (g/t)	Au (g/t)	Tonnes	Ag (g/t)	Au (g/t)
Ramal 483	1,011	482	7.86			
Ramal 793	1,397	1,062	10.55			
Ramal 861A	10,120	458	7.32	6,349	86	2.52
Ramal 861B	6,401	155	5.60			
Ramal 861V				2,156	212	2.29
Ramal Ayelen	14,385	363	4.45	6,141	185	2.29
Ramal Frea	15,886	323	4.42			
Ramal HVN	6,621	431	7.44	4,757	110	1.93
Ramal HVND	7,943	488	5.51	1,425	144	1.51
Ramal HVNE				5,694	164	1.96
Ramal HVNL	608	854	9.61			
Ramal Noel				9,906	115	2.54
Sigmoide 251	2,779	233	11.94			
Sigmoide Luli	16,849	696	8.74	1,357	196	2.19
Sigmoide Luli03	13,023	376	2.67			
Tensional EW	38,413	126	6.50	19,464	43	3.30
Tensional Perla	28,039	537	7.24	9,214	138	1.62
Veta 290	40,588	350	15.12			
Veta Abril	4,227	338	5.07			
Veta Antonella	29,336	250	7.18	3,029	109	3.67
Veta Ayelen	14,783	371	3.89	12,538	147	2.73
Veta Delfina	16,933	291	4.49	4,578	217	2.58
Veta Ext. Ayelen	50,757	586	6.90	2,380	172	3.09
Veta Fatima	6,435	202	6.92			
Veta Frea	15,053	146	6.79	1,437	26	3.70
Veta Giulieta	5,029	737	6.66	1,226	201	1.56
Veta HVN	68,570	432	4.26	41,227	182	2.27
Veta HVC	8,303	530	6.39	1,344	146	2.10
Veta HVS	14,551	755	12.12			
Veta Kospi	61,980	954	13.29	1,368	184	2.16
Veta KospiSE	9,659	478	12.07			
Veta KospiSE01	2,881	333	6.97	3,164	110	2.69
Veta Luli Sur	22,586	485	5.17			
Veta Mara	3,846	377	4.44			
Veta Marcia	1,233	172	4.69	1,291	97	3.27
Veta Micaela E	30,737	190	3.94	3,245	85	1.68
Veta Micaela W	24,736	420	8.87	6,340	91	3.05
Veta Molle	45,027	827	11.34	1,413	128	2.67
Veta Odin	133,448	394	6.96	41,436	197	2.16
Veta Pilar				19,321	111	2.29
Veta Sanson	9,244	489	2.72			
Veta Sara	7,054	421	3.59			
Stockpile	11,002	336	8.00			
Total / Average	**801,472**	**464**	**7.58**	**211,802**	**146**	**2.41**

Note: Table 12-10 represents 100% of the San José Property. McEwen Mining has a 49% attributable interest in the San José Property.

Table 12-11 – Mineral Reserve Estimate as of December 25, 2020 [1-9]

Mineral Reserves				
Date: December 25, 2021		Based on: Ag=$20/oz, Au=$2000/oz		
Classification	**Tonnes (k)**	**Grades Ag g/t Au g/t AgEq g/t**	**AgEq Cut-off grades**	**Metallurgical recovery**
Proven mineral reserves	826	408 / 6.75 / 989	228	90.0% Au 89.9% Ag
Probable mineral reserves	187	354 / 5.46 / 823	228	90.0% Au 89.9% Ag
Total mineral reserves	1,013	398/ 6.51 /958	228	90.0% Au 89.9% Ag

1) Based on P&E's knowledge there are no environmental, permitting, legal, title, taxation, socio-economic political issues that would materially affect these Mineral Reserves.
2) P&E used a gold price of US$1,800/oz and a silver price of US$20/oz for estimating Mineral Reserves.
3) The cut-off value used to estimate Mineral Reserves is based on historical October 2019 to September 2020 geologic, mining, plant and mine administration variable and fixed costs.
4) Mineral Reserves are 100% attributable to property. McEwen Mining has a 49% interest in San José.
5) AgEq = (Au x 86) + Ag
6) AgEq Cut-off: 228 g/t
7) Totals have been rounded to the appropriate number of significant figures.
8) Mineral Reserves include internal dilution
9) The Mineral Resources in this report were estimated and reporting using the regulation S-K §229.1304 of the United States Securities and Exchange Commission ("SEC").

12.3.1 Ore Stockpile

As of December 25, 2020, there were 11,000 t of ore stockpiled on surface at an estimated 336 g/t Ag and 8.00 g/t Au which is included in the estimate of Mineral Reserves.

There is a total of 42 veins that will be mined at San José. Three of San José's principle veins are Molle, Kospi and Ayelen Extension. Longitudinal projections and plan views of these three veins are presented in Figure 12-1, Figure 12-2 and Figure 12-3, showing the LOM mine plan areas for 2021 to 2022.

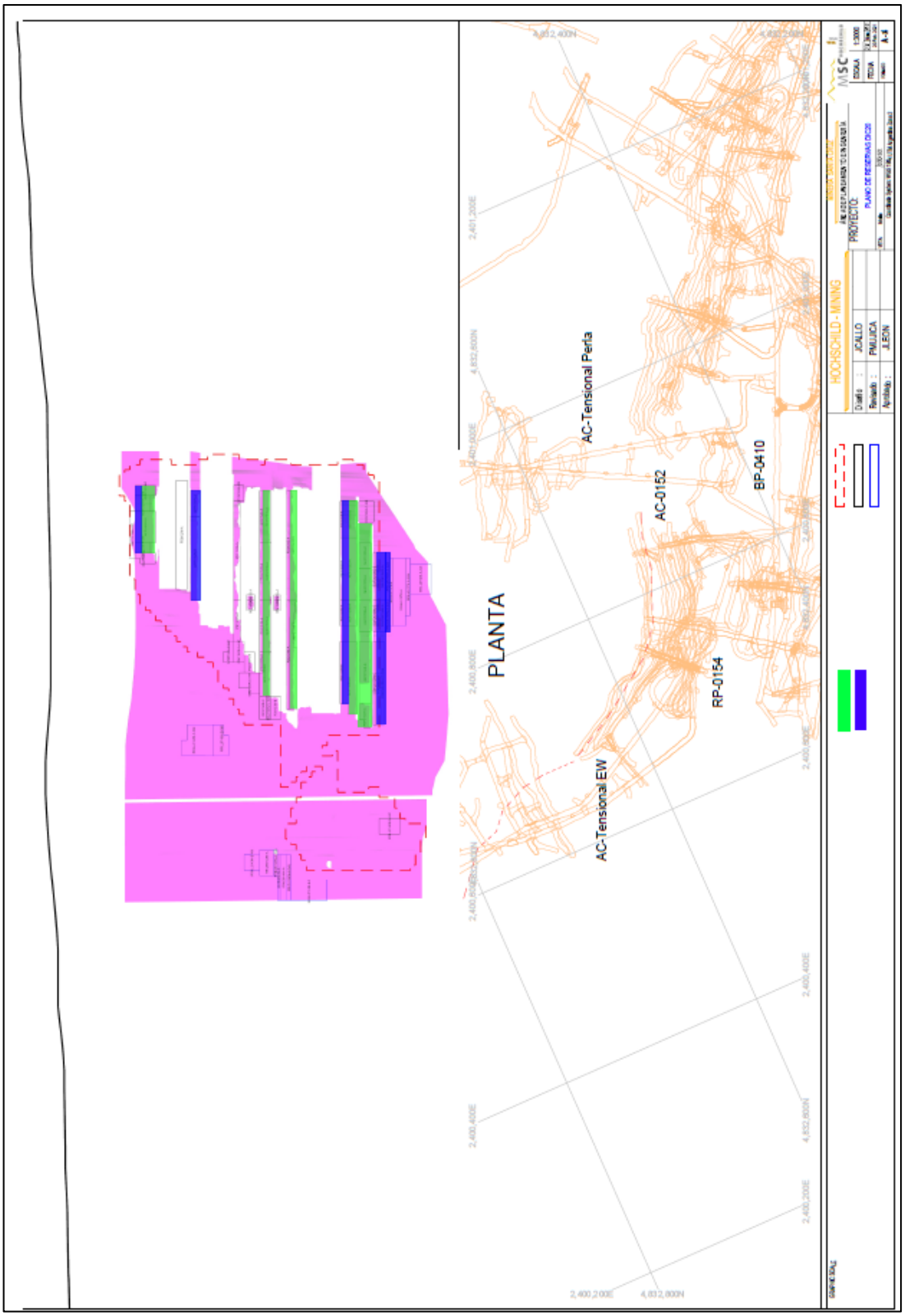

Figure 12-1 – Longitudinal Projection and Plan View of Molle Vein – Source: Hochschild (2021)

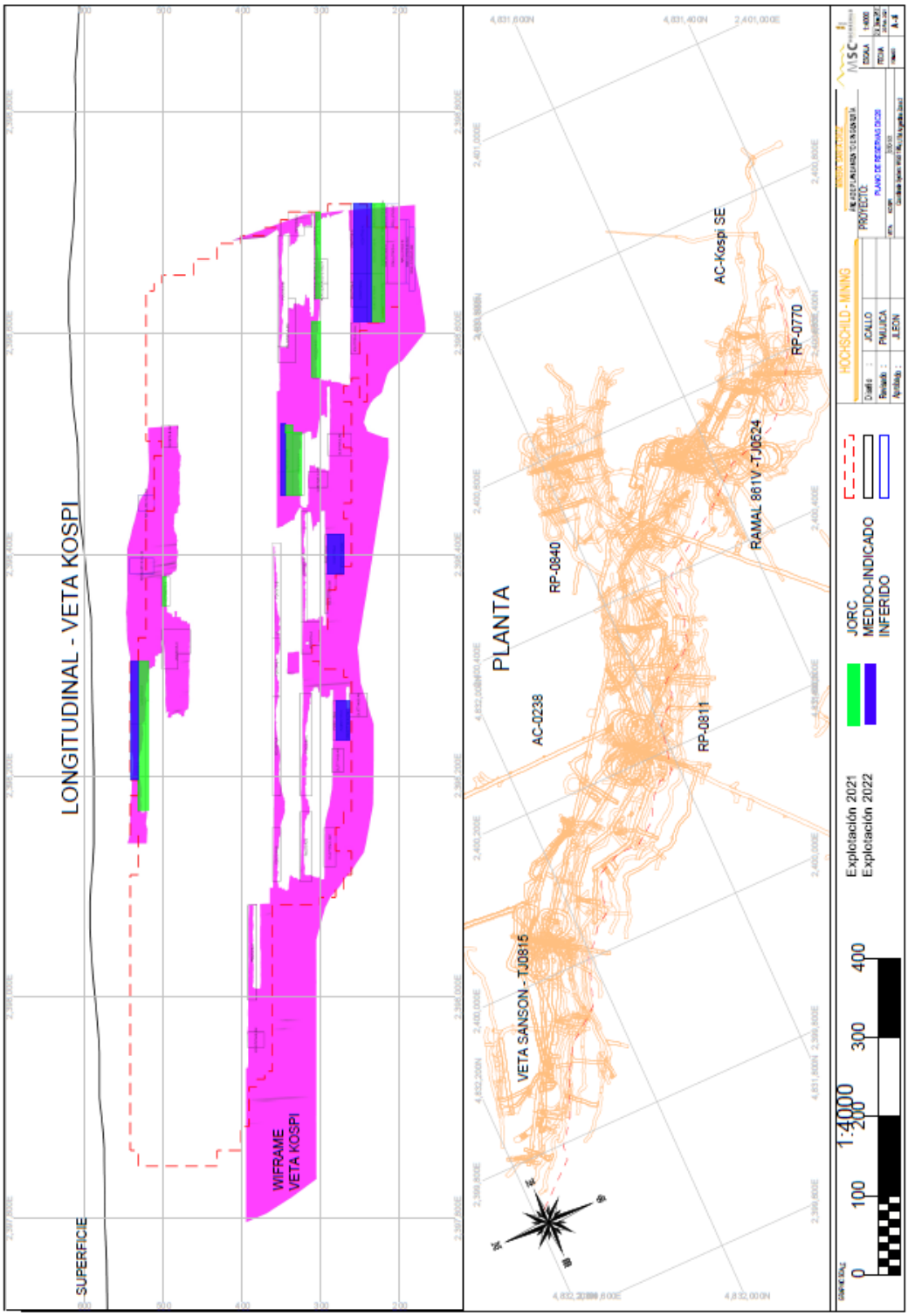

Figure 12-2 – Longitudinal Projection and Plan View of Kospi Vein – Source: Hochschild (2021)

Figure 12-3 – Longitudinal Projection and Plan View of Ayelen Extension Vein – Source: Hochschild (2021)

12.3.2 Remaining Mineral Resource

In addition to the 1,651,900 t of Measured and Indicated Mineral Resources not recovered, a total of 208,600 t of Measured Mineral Resources grading 355 Ag/t and 5.07 g/t Au, 145,000 t of Indicated Mineral Resources grading 260 Ag/t and 3.33 g/t Au, totalling 353,600 t of Measured and Indicated Mineral Resources at 316 Ag/t and 4.36 g/t Au remain to be considered for conversion to Mineral Reserves. A summary of Measured, Indicated, and total Measured and Indicated Mineral Resources not converted to Mineral Reserves are presented in Table 12-12, Table 12-13 and Table 12-14, respectively.

Table 12-12 – San José Measured Mineral Resources Not Converted to Mineral Reserves as of December 25, 2020

Vein	Tonnes	Ag (g/t)	Au (g/t)
Brecha Saavedra TJ101	11,816	1,072	4.85
Brecha Saavedra TJ102	10,696	532	1.83
Ramal 425	783	722	6.53
Ramal 483	2,126	307	5.06
Ramal 581	126	791	5.80
Ramal 793	227	1,705	18.00
Ramal 861A	614	376	4.26
Ramal 861B	503	105	2.62
Ramal 861C	32	704	5.42
Ramal 861I	1,820	788	7.49
Ramal 861V	431	401	4.87
Ramal 861W	3,151	590	8.56
Ramal Ayelen	3,801	382	4.12
Ramal Frea	10,762	318	5.88
Ramal Frea450	185	320	1.95
Ramal HVN	2,228	405	2.71
Ramal HVNC	382	154	2.16
Ramal HVND	375	1,335	13.64
Ramal HVNE	810	181	2.58
Ramal HVNK	320	139	2.43
Ramal HVNL	253	1,433	18.71
Ramal HVS	1,277	383	4.06
Ramal Kospi	2,180	131	5.31
Ramal Luli	1,360	347	3.48
Ramal Noel	94	182	4.65
Sigmoide 251	0	0	0.00
Sigmoide 290	0	0	0.00
Sigmoide Luli	4,481	506	6.66
Sigmoide Luli03	645	379	5.08
Sigmoide Shala	8	2,498	15.44
Tensional EW	986	81	6.54
Tensional Perla	946	358	4.68
Veta 290	14,197	157	8.54
Veta 425A	202	107	2.29
Veta Abril	1,100	310	5.49
Veta Antonella	3,813	127	4.26
Veta Ayelen	5,394	192	2.49
Veta Chiara	864	80	7.47

Vein	Tonnes	Ag (g/t)	Au (g/t)
Veta Delfina	633	212	2.94
Veta Extension Ayelen	13,722	426	5.02
Veta Fatima	130	76	2.48
Veta Frea	15,647	127	4.57
Veta Giulieta	3,461	711	5.37
Veta Huevos Verdes Norte	8,902	215	3.22
Veta HVC	1,105	427	6.64
Veta HVS	4,700	402	5.90
Veta Kospi	25,277	331	6.98
Veta KospiSE	776	353	9.57
Veta KospiSE01	224	304	5.30
Veta Luli Sur	3,553	399	4.10
Veta Mara	43	178	1.06
Veta Marcia	615	260	6.83
Veta Marta	4,993	296	3.36
Veta Micaela E	9,849	193	2.47
Veta Micaela W	1,629	355	8.02
Veta Molle	3,938	419	5.39
Veta Noel	51	136	4.22
Veta Odin	12,949	206	4.13
Veta Pacha	38	246	4.15
Veta Piedad	72	238	2.50
Veta Pilar	6,149	183	3.51
Veta Sanson	569	538	3.00
Veta Shala	528	387	4.00
Total / Average	**208,596**	**355**	**5.07**

Table 12-13 – San José Indicated Mineral Resources Not Converted to Mineral Reserves as of December 25, 2020

Vein	Tonnes	Ag (g/t)	Au (g/t)
Brecha Saavedra TJ101	5,382	993	5.11
Brecha Saavedra TJ102	21,514	425	1.63
Ramal 425	265	1,003	9.00
Ramal 483	930	255	2.23
Ramal 581	23	2,581	18.52
Ramal 793	0	0	0.00
Ramal 861A	1,035	144	3.21
Ramal 861B	0	0	0.00
Ramal 861C	0	0	0.00
Ramal 861I	545	186	3.69
Ramal 861V	563	194	3.06
Ramal 861W	356	155	1.93
Ramal Ayelen	2,264	253	2.41
Ramal Frea	4,714	300	2.65
Ramal Frea450	285	305	1.84
Ramal HVN	2	234	3.00
Ramal HVNA	1,732	265	2.08
Ramal HVNB	1,016	634	6.28
Ramal HVNC	402	201	3.18
Ramal HVND	214	101	1.62
Ramal HVNE	461	133	1.35
Ramal HVNI	2,107	97	2.26
Ramal HVNJ	699	154	1.91
Ramal HVNK	51	422	3.34
Ramal HVNL	0	0	0.00
Ramal HVNM	125	208	2.45
Ramal HVS	2,503	198	4.90
Ramal Kospi	8,623	113	3.91
Ramal Luli	28	144	3.10
Ramal Molle	76	114	3.38
Ramal Noel	3	173	2.29
Sigmoide 251	109	516	35.27
Sigmoide 290	0	0	0.00
Sigmoide Luli	3,768	222	2.31
Sigmoide Luli03	51	248	1.72
Sigmoide Shala	11	258	1.65
Tensional EW	303	27	3.02
Tensional Perla	1,695	349	4.56
Veta 290	1,245	195	8.96

Vein	Tonnes	Ag (g/t)	Au (g/t)
Veta 425A	1,479	90	3.31
Veta Abril	703	160	2.43
Veta Antonella	819	180	3.08
Veta Ayelen	2,939	270	4.00
Veta Candela	219	176	2.00
Veta Chenque	1,261	177	2.05
Veta Chiara	341	74	2.86
Veta Delfina	2,122	249	3.25
Veta Elisa	228	456	5.53
Veta Extension Ayelen	480	224	2.81
Veta Fatima	294	191	6.45
Veta Frea	7,143	193	2.75
Veta Frod	855	154	2.63
Veta Giulieta	273	138	1.35
Veta HVN	5,935	147	2.44
Veta HVC	355	517	6.57
Veta HVS	1,764	322	6.72
Veta Kospi	11,653	144	4.57
Veta KospiSE	509	139	7.62
Veta KospiSE01	600	168	6.88
Veta Luli Sur	2	104	1.50
Veta Mara	20	853	10.63
Veta Marcia	0	0	0.00
Veta Marta	2,910	377	5.82
Veta Micaela E	6,141	161	2.33
Veta Micaela W	381	199	8.43
Veta Milagro	947	176	2.51
Veta Molle	2,378	114	2.59
Veta Noel	378	157	3.84
Veta Odin	9,500	132	3.26
Veta Pacha	0	0	0.00
Veta Perla	4,820	221	3.46
Veta Piedad	0	0	0.00
Veta Pilar	10,727	128	3.36
Veta Sanson	164	612	3.18
Veta Sara	2,127	517	5.01
Veta Shala	189	899	6.25
Veta Socorro	968	232	1.80
Veta Ula	262	218	2.18
Total / Average	**144,990**	**260**	**3.33**

Table 12-14 – San José Total M&I Mineral Resources Not Converted to Mineral Reserves as of December 25, 2020

Vein	Tonnes	Ag (g/t)	Au (g/t)
Brecha Saavedra TJ101	17,199	1,047	4.94
Brecha Saavedra TJ102	32,210	461	1.70
Ramal 425	1,048	793	7.15
Ramal 483	3,056	291	4.20
Ramal 581	149	1,065	7.76
Ramal 793	229	1,688	17.83
Ramal 861A	1,648	230	3.60
Ramal 861B	502	105	2.61
Ramal 861C	32	704	5.41
Ramal 861I	2,365	649	6.62
Ramal 861V	994	283	3.85
Ramal 861W	3,507	546	7.89
Ramal Ayelen	6,065	333	3.48
Ramal Frea	15,476	313	4.90
Ramal Frea450	470	311	1.89
Ramal HVN	2,230	404	2.71
Ramal HVNA	1,732	265	2.08
Ramal HVNB	1,016	634	6.28
Ramal HVNC	784	178	2.68
Ramal HVND	589	887	9.28
Ramal HVNE	1,271	164	2.13
Ramal HVNI	2,107	97	2.26
Ramal HVNJ	699	154	1.91
Ramal HVNK	371	178	2.55
Ramal HVNL	253	1,432	18.70
Ramal HVNM	125	208	2.45
Ramal HVS	3,781	260	4.62
Ramal Kospi	10,803	116	4.19
Ramal Luli	1,388	343	3.47
Ramal Molle	76	114	3.38
Ramal Noel	97	182	4.58
Sigmoide 251	109	516	35.18
Sigmoide 290	0	0	0.00
Sigmoide Luli	8,249	376	4.67
Sigmoide Luli03	696	370	4.84
Sigmoide Shala	19	1,206	7.48
Tensional EW	1,289	68	5.71
Tensional Perla	2,641	352	4.60
Veta 290	15,443	160	8.57

Vein	Tonnes	Ag (g/t)	Au (g/t)
Veta 425A	1,682	92	3.19
Veta Abril	1,802	251	4.29
Veta Antonella	4,632	137	4.05
Veta Ayelen	8,333	219	3.03
Veta Candela	219	176	2.00
Veta Chenque	1,261	177	2.05
Veta Chiara	1,204	78	6.17
Veta Delfina	2,755	240	3.18
Veta Elisa	228	456	5.53
Veta Extension Ayelen	14,202	419	4.95
Veta Fatima	424	156	5.23
Veta Frea	22,790	148	4.00
Veta Frod	855	154	2.63
Veta Giulieta	3,734	669	5.07
Veta HVN	14,838	188	2.91
Veta HVC	1,460	449	6.62
Veta HVS	6,464	380	6.13
Veta Kospi	36,930	272	6.22
Veta KospiSE	1,285	268	8.80
Veta KospiSE01	825	205	6.45
Veta Luli Sur	3,555	399	4.10
Veta Mara	62	390	4.06
Veta Marcia	614	260	6.83
Veta Marta	7,903	326	4.26
Veta Micaela E	15,991	181	2.42
Veta Micaela W	2,010	326	8.09
Veta Milagro	947	176	2.51
Veta Molle	6,316	304	4.34
Veta Noel	430	155	3.89
Veta Odin	22,449	175	3.76
Veta Pacha	38	248	4.20
Veta Patricia	54	166	1.88
Veta Perla	4,820	221	3.46
Veta Piedad	73	236	2.42
Veta Pilar	16,876	148	3.41
Veta Sanson	732	555	3.04
Veta Sara	2,127	517	5.01
Veta Shala	716	522	4.60
Veta Socorro	968	232	1.80
Veta Ula	262	218	2.18
Total / Average	**353,586**	**316**	**4.36**

12.4 Assessment of Reserve Estimate Risks

- Probable Mineral Reserves are at a lower confidence risk than Proven Mineral Reserves. Marginal Mineral Reserves are at a higher risk of being uneconomic than Economic Mineral Reserves.
- Long term future higher cut-off, and lower NSR's (Valor de Punto's), values have the potential, and may, reduce Mineral Reserves tonnes and contained metal.
- Lack of a skilled work force, and supervision.
- Loss of Mineral Reserves due to unexpected 'falls of ground', and/or bad ground conditions.
- Loss of Mineral Reserves due to unexpected, and uncontrollable, ground water inflow.
- Unexpected geologic conditions (ie In the Measured and Indicated Mineral Resource estimates.)
- Higher than expected mine dilution.
- Lower than expected mine recovery.

13 MINING METHODS

13.1 Mine Design

San José is a ramp access underground mining operation. The San José veins are accessed from three main portals: The Tehuelche Portal, the Kospi Portal, and the Güer Aike Portal. Initially two small inclined shafts were developed to provide access to the HVS and HVN veins. These shafts are now used to supplement the primary ventilation circuit. Main ramps are generally 4.0 m wide by 4.3 m high at a 12% gradient on the straight sections and 10.5% on the curves. A smaller profile is used in areas where truck access is not required. The main ramps are located approximately 50 m from the veins, depending on the dip of the ore. Crosscuts to the ramp are centrally positioned on the vein and usually have an ore pass and a waste backfill pass.

The average mining width across all of the vein systems is approximately 2 m. The dip of the veins varies from 55º to 70º. Mechanized cut and fill mining using LHDs, and jacklegs (pneumatic rock drills) or single-boom jumbos, respectively, is utilized at San José. The majority of production ore is derived from the "uphole retreat" mining technique where a panel of approximately 50 m in length is drilled with upholes and retreated along strike. Horizontal "breasting" is only used on the initial lift in each stope. A "resue" mining technique is employed in narrow high-grade areas. Stoping areas are separated by 3 m high sill pillars. A timber floor mat, for narrow stopes, or cemented backfill, for wider stopes, is placed on the sill pillar (1st lift).

The primary ventilation utilizes the negative pressure system that is based on the main (primary) ventilation fan drawing the contaminated air from the Mine. Fresh air enters the Mine through either the main access declines or a dedicated fresh air raise where it is directed to each of the working areas via a secondary ventilation system.

Development waste rock is usually hauled to a surface stockpile and then re-handled through waste passes when it is required underground as backfill. Supplementary backfill is available from a surface waste rock storage facility.

13.2 Geotechnical and Hydrological Considerations

13.2.1 Geotechnical Considerations

The ground support consists of random rock and cable bolts with occasional mesh and shotcrete. Timber sets are also used in some areas. Development waste rock is usually hauled to a surface stockpile and then re-handled through waste passes when it is required underground as backfill. Supplementary backfill is available from a surface waste rock storage facility. Hydraulic backfill is utilized for approximately 60% of the backfill requirements, and waste rock backfill is used for the remaining 40% of the requirements.

13.2.2 Hydrogeological Considerations

Groundwater inflow is estimated to be between 8 and 20 L/s. Floor gradients are constructed to assist the natural flow of water to the sumps. Mine water is pumped to the main underground sumps using small 7 hp Flygt submersible pumps. Grindex 50 hp submersible pumps are used to pump the water to the surface settling ponds. Clean water is pumped directly from the settling pond to the processing plant and the main water reservoir, or it is returned to the Mine to be used as mine process water (for drilling, washing etc.).

13.3 Mining Fleet and Manning

The mining equipment consists of development and production drills, LHDs, haul trucks, service vehicles and personnel transport vehicles. LHDs range in size from 0.75 yd^3 to 6.0 yd^3. A fleet of 30 t highway type trucks is used to haul the ore to the surface. A list of Company underground equipment is presented in Table 13-1.

A summary of underground mine personnel is presented in Table 13-2. There are 4 groups of personnel, 2 working and 2 off.

Table 13-1 – Underground Mine Equipment Fleet

Description	Principle Function	Quantity
Jumbo Drills	Mine Horizontal Development	5
Jumbo Drills	Production Horizontal Development	6
Jumbo Troidon	Production Vertical Development	2
LHD 0.75 yd^3	Production Loading	4
LHD 1.5 yd^3	Production Loading	14
LHD 2.5 yd^3	Production Loading	4
LHD 4.0 yd^3	Production Loading	9
LHD 6.0 yd^3	Development Loading	3
Haulage Truck 30 t	Production Mineral Haulage	7
Haulage Truck 30 t	Development Haulage	6
Mixcrete	Transport Shotcrete	4
Shotcreter	Shotcreting	2
Rock and Cable Bolter	Rock and Cable Bolting	8
Scaler	Scaling	1
U/G Pickups	Supervision	63
Personnel Transporter	Transport Personnel	11
Service Vehicle	Sampling and Installing Services	13
Bobcats	Cleaning	36
Total U/G Equipment		**198**

Table 13-2 – Underground Mine Personnel

Description	Quantity
Mine Superintendent	1
Shift and Section Bosses	18
Supervisors	44
Operators and Helpers	668
Total Mine	**731**

13.4 Mine Plan and Schedule

A summary of San José's mine remaining LOM operating development requirements, and schedule, is presented in Table 13-3.

In summary there is a total 4,836 m of remaining LOM mine operating development requirements itemized in Table 13-3. Mine operating development costs are expensed and included in the overall operating cost.

A summary of San José's mine remaining LOM capital development requirements, and schedule, is presented in Table 13-4.

In summary there is a total 4,836 m of remaining LOM mine operating preparation development, that will be expensed, and 5,041 m of LOM mine capital development required, that will be capitalized, for a total of 9,876 m of LOM capital development required.

Table 13-3 – LOM Mine Operating Development

Heading Size (W x H) (m)	2021 (m)	2022 (m)	2023 (m)	LOM Total (m)
1.5x1.5	70	10	0	80
1.8x1.8	146	9	0	156
2.0x1.8	8	10	0	18
2.4x2.4	39	35	0	74
2.5x2.0	95	25	0	120
3.5x3.5	3,284	572	0	3,856
4.3x4.0	48	0	0	48
7.0x5.0	36	0	0	36
Operating Development	**3,726**	**662**	**0**	**4,388**
Raisebore 1.50 m Diameter	87	0	0	87
Raisebore 1.80 m Diameter	361	0	0	361
Total Operating Development	**4,174**	**662**	**0**	**4,836**

Table 13-4 – LOM Mine Capital Development

Heading Size (W x H) (m)	2021 (m)	2022 (m)	2023 (m)	LOM Total (m)
Infrastructure				
2.4 x 1.5	41	34	0	75
2.4 x 1.8	18	14	0	31
3.5 x 3.5	100	473	0	574
4.3 x 4.0	177	378	0	555
6.0 x 5.0	9	0	0	9
Total Infrastructure Capital	**1,743**	**500**	**0**	**2,243**
Preparation 3.5 x 3.5	2,113	456	0	2,569
Raisebore 1.80 m Diameter	229	0	0	229
Total Mine Capital Development (m)	**4,085**	**956**	**0**	**5,041**

Table 13-5 – Schedule for Remaining LOM Ore Development and Production

SCHEDULE FOR REMAINING LOM ORE DEVELOPMENT AND PRODUCTION					
Item	**Units**	**2021**	**2022**	**2023**	**LOM Total**
Development Ore	tonnes	25,699	7,235		32,934
	Ag (g/t)	262	194		247
	Au (g/t)	4.33	3.25		4.09
Production Ore	tonnes	475,928	493,409		969,338
	Ag (g/t)	370	436		404
	Au (g/t)	6.46	6.68		6.57
Total Ore	**tonnes**	**501,627**	**500,644**		**1,002,272**
	Ag (g/t)	**364**	**433**		**399**
	Au (g/t)	**6.35**	**6.63**		**6.49**

Production from the San José Mine is estimated to deliver 1,002,300 t of ore, at 6.49 g/t Au and 399 g/t Ag, to the processing plant from January 2021 to December 2022 (LOM), which includes both development and production ore. A summary, and schedule, of remaining LOM development and production ore, and development waste, is presented in Table 13-5.

The planned production rate is 1,650 tpd, processed, for the process working days per year. Six mining methods are planned, LOM.

14 PROCESSING AND RECOVERY METHODS

14.1 Process Design Criteria

The 1,650 tpd San José process plant (Figure 14-1) in the Santa Cruz Province of Argentina is a relatively complex 13-year old facility which includes conventional crushing, grinding, and production by flotation of a silver-gold-sulphide concentrate. The processing of flotation concentrate tonnage is split between leaching with on-site doré metal production, and filtering, bagging, and the shipment of moist concentrate to a smelter/refinery for processing. On-site doré production facilities are composed of the intensive cyanide extraction of silver and gold from the flotation concentrate followed by electrowinning ("EW") of gold and silver from a "pregnant" leach solution ("PLS") and foundry refining to produce silver-gold doré bars. A small Merrill Crowe ("MC") facility was formerly dedicated to recovering gold and silver from cyanide leach tailings pond water but has recently also been used to process a portion of clarified barren solution.

Figure 14-1 – San José Process Plant, January 2020

The San José process plant has been visited annually for 11 years for audit purposes by P&E, most recently in January 2020. The process plant was observed to be in a good functioning condition, with crushing, grinding, flotation and product filtering operating smoothly. Also, the intensive leaching reactor ("ILR") leaching, counter current decantation ("CCD") and clarification circuits were observed to be operating smoothly. Housekeeping and attention to worker safety continue to be plant management priorities. Two on-going health and safety challenges have been receiving special attention; ambient dust levels in the crusher plant, and infrequent elevated gaseous cyanide levels in the leaching/CCD area.

During the most recent year's operation, from December 26, 2018 to December 25, 2019, operations were interrupted minimally, principally only by scheduled maintenance, and a holiday shutdown for 6 days, leaving 348 operating days during 2019. Some of the more significant interruptions are listed in Table 14-1.

Table 14-1 – Process Plant Interruptions 2019, Percent Operating Time

Month	Issue	% Operational	
		Grinding, Flotation	Leaching Circuit
January	None reported	96	96
February	Scheduled shutdown for holiday	81	81
March	Maintenance	96	95
April	Maintenance	97	97
May	Maintenance	97	97
June	Maintenance	98	95
July	Maintenance	98	97
August	Maintenance	98	96
September	Maintenance	98	96
October	Crushing, grinding, flotation maintenance	89	85
November	Leaching maintenance	98	88
December	Maintenance	98	93
Availability		**95.3**	**93.0**
Operating days		**348**	**339**

The ore supply is continuously delivered to the process plant by highway type mine-accessible trucks and is piled and blended in grade-specific ranges by a front-end loader as shown in Figure 14-2.

Figure 14-2 – Ore Stockpiles and Blending

The San José ROM ore is generally dry, but clay-rich seams can result in hang-ups on the grizzly as indicated in Figure 14-3. These blockages are manually liberated.

Figure 14-3 – Ore at Grizzly, San José Process Plant

Dust suppression is an ongoing challenge in the San José crushing facility. During crusher and screen operation, ambient dust levels have been high despite two installed engineered systems dedicated to dust suppression and dust collection. These two systems of dust control are an integrated dust collection system with a bag house, supplemented using high-pressure fine water sprays ("nebulizers") placed at critical locations such as conveyor transfer points.

During the February 2019 holiday shutdown, the dust suppression and collection system was subjected to cleaning and maintenance, following which performance is reported to have improved. However, during the 2020 P&E visit, excess ambient dust was observed in the crusher plant and neither wet nor dry dust suppression systems appeared to be functioning properly.

The amount of scrap metal and plastic debris in the ore arriving at the process plant can be significant (Figure 14-4). Two stationary magnets augment the manual removal of metal. A portion of the plastic debris is also manually removed from the crushing plant screens (Figure 14-5). Plastic debris fragments can have deleterious impacts on automatic slurry sample cutting, flotation cell froth removal and control valve operation. The installation of trash screens in either flotation feed or rougher concentrate feed to cleaner cells has been considered.

Figure 14-4 – Scrap Metal and Debris Collection

Figure 14-5 – Crushing Plant Screen (Debris Collection and Ambient Dust Visible)

14.2 Process Flowsheet and Description

The initial installed unit processes included those attributed to the Gekko test results (reference SRK 2009). In summary, these were:

- 3-stage crushing to prepare 750 tpd of ball mill feed;
- Single stage ball mill grinding in closed circuit with cyclones;
- Gravity concentration of gold and silver from ball mill discharge;

- Sulphide-Ag-Au concentrate production by flotation;
- ILR leaching of concentrate, CCD of pregnant leach solution ("PLS"), solution clarification, EW and doré production; and
- Resin recovery of residual Au and Ag and SO2-air cyanide removal from barren solution.

Processes removed from the operation shortly after start-up included:

- Gravity circuit;
- Resin absorption system; and
- SO2-air cyanide destruction system (replaced with use of hydrogen peroxide).

Modifications included the installation of a second ball mill increasing tonnage capacity to 1,500 tpd. Consideration had been given (Gekko, 2008) in early 2008 to leach all of the concentrate instead of filtering, bagging and shipping part of the concentrate (20% of concentrate was bagged in early 2008, the first full year of operations). Leaching all of the concentrate called for the installation of a total of 8 Gekko ILR's (3 had been installed) and an additional 7 Gekko EW cells. However, in spite of the acquisition and warehousing of several additional ILR reactors, the strategy of splitting concentrate processing equally between ILR leaching and thickening/filtration/shipment was selected.

The Gekko testwork had indicated metal recoveries of 83% for Au and 87% for Ag. During the actual early operations (e.g. 2009), gold recoveries were similar, but silver was lower as shown in Table 14-2.

Table 14-2 – Overall Metallurgical Recovery

Year	Au (%)	Ag (%)	Notes
2008	83.29	82.34	
2009	83.31	83.78	Flotation recovery: Au 85.0, Ag 85.0

The San José process plant has been continuously improved or modified since operations began in June 2007. In recent years, major modifications have been introduced to the intensive cyanide leaching circuit, CCD, EW, foundry, peroxide supply, and leach circuit ventilation. In 2019, two new 4 m^3 diameter CCD's were installed, a column flotation cell was tested, and facilities to produce mine backfill and to dewater tailings were commissioned.

Plans had been considered several years earlier to modify the leaching circuit to increase the capacity of the cyanide leaching, CCD, EW, and detox circuits to eventually process up to 100% of the flotation concentrate. The consideration for this change had been driven by higher financial returns on producing doré versus marketing flotation concentrate. None of these modifications/improvements had been

made. Instead the proportion leaching has been held to the maximum capacity of the existing ILR-CCD-EW facilities which is about 50% of flotation concentrate production.

San José process plant flowsheets are shown in Figure 14-6 and Figure 14-7. These well-illustrated figures correctly identify the unit processes but lack a few updates such as the flotation tailings treatment and the upgraded CCD unit size and numbers.

The San José active crushed ore storage capacity exceeds 2,000 tpd. The three-stage crushing plant operates 14-16 hours per day to produce a ball mill feed of 93% -9.5 mm (-3/8 inches). The primary crusher is a Metso C100; the secondary is a Metso HP200 standard, and the tertiary is a Metso HP200 short-head, with the secondary and tertiary operating in closed circuit with Metso 1.8 m by 4.9 m (6 by 16 ft) double deck screens with 19 mm (3/4 inch) and 9.5 mm (3/8 inch) openings. Maximum crushed ore capacity is four silos of nominally 500 t each. Due to crushed ore hang-up, live ore capacity is significantly less than 500 t in each silo.

A total of 1,650 dry tpd, 825 tpd is fed to each of two 3.2 m by 5.2 m (10.5 ft by 17 ft) rubber-lined ball mills and is recorded by belt weightometers which are calibrated weekly by the process plant instrument technicians. Grab samples are obtained every two hours from the parallel feed conveyors to assess moisture content. Grinding performance is consistently 65-68% -200 mesh. The ball mills are powered with 750 kw drives, rotate at 74.6% of critical speed with a 40% ball charge of 64, 76 and 89 mm (2.5, 3.0 and 3.5 inch) steel balls; steel consumption is 1.5 kg/t.

The flotation circuit is composed of two parallel circuits of eight Denver DR-300 roughers and scavengers, and six DR-24 Sub-A cleaners. Flotation equipment operates reliably with no inconsistences recently reported. Z6 xanthate and Aerophine 3481A supplemented by a MIBC frother are the principle flotation agents added to grinding and to the flotation feed conditioner. Details of the flotation circuit are shown in Figure 14-8. While the flotation circuit is actually two parallel circuits, rougher concentrates are combined, then split to each side for cleaning.

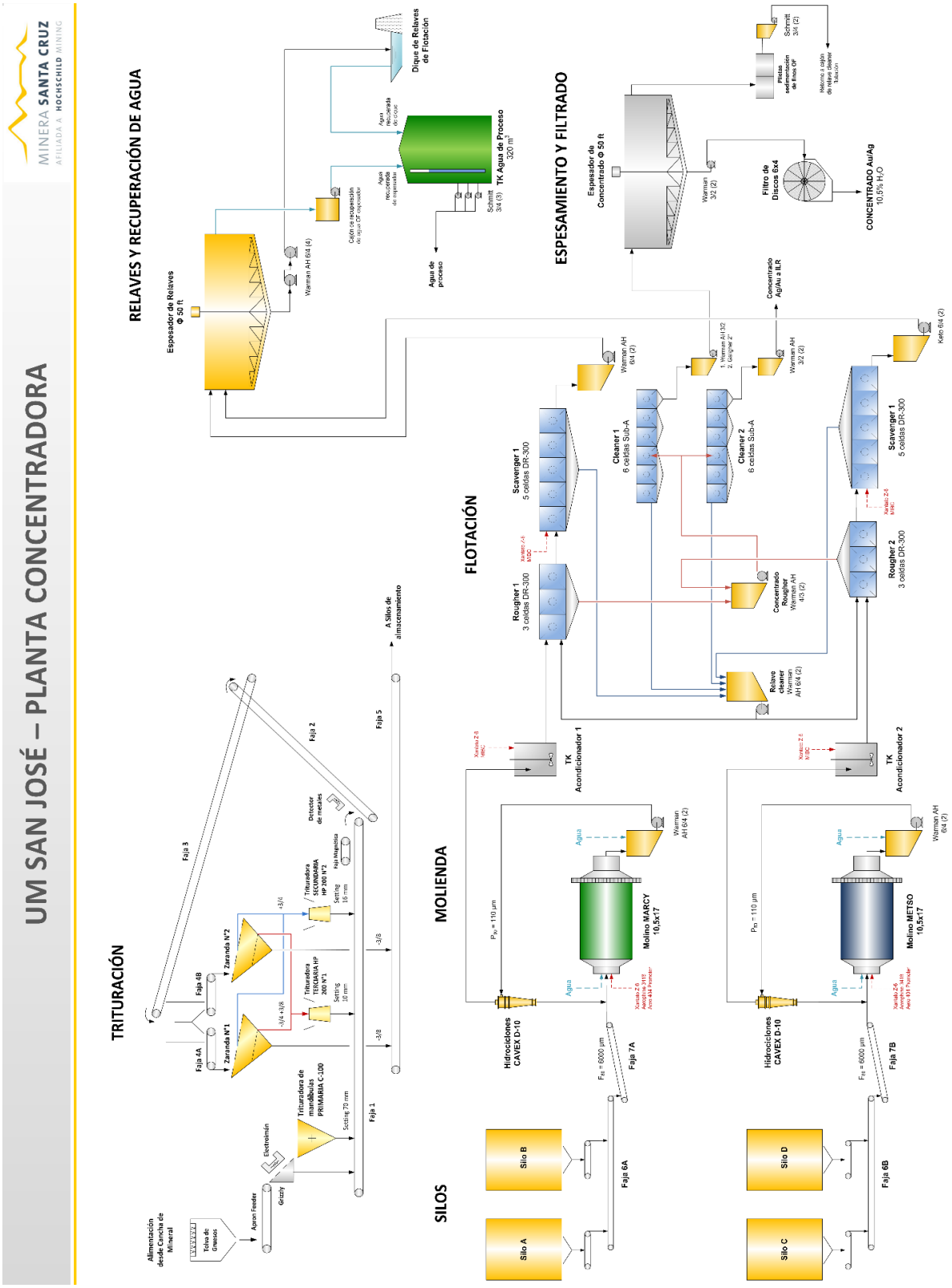

Figure 14-6 – Crushing, Grinding, Flotation, Concentrate Filtration and Tailings Flowsheet – Source: Hochschild (2019)

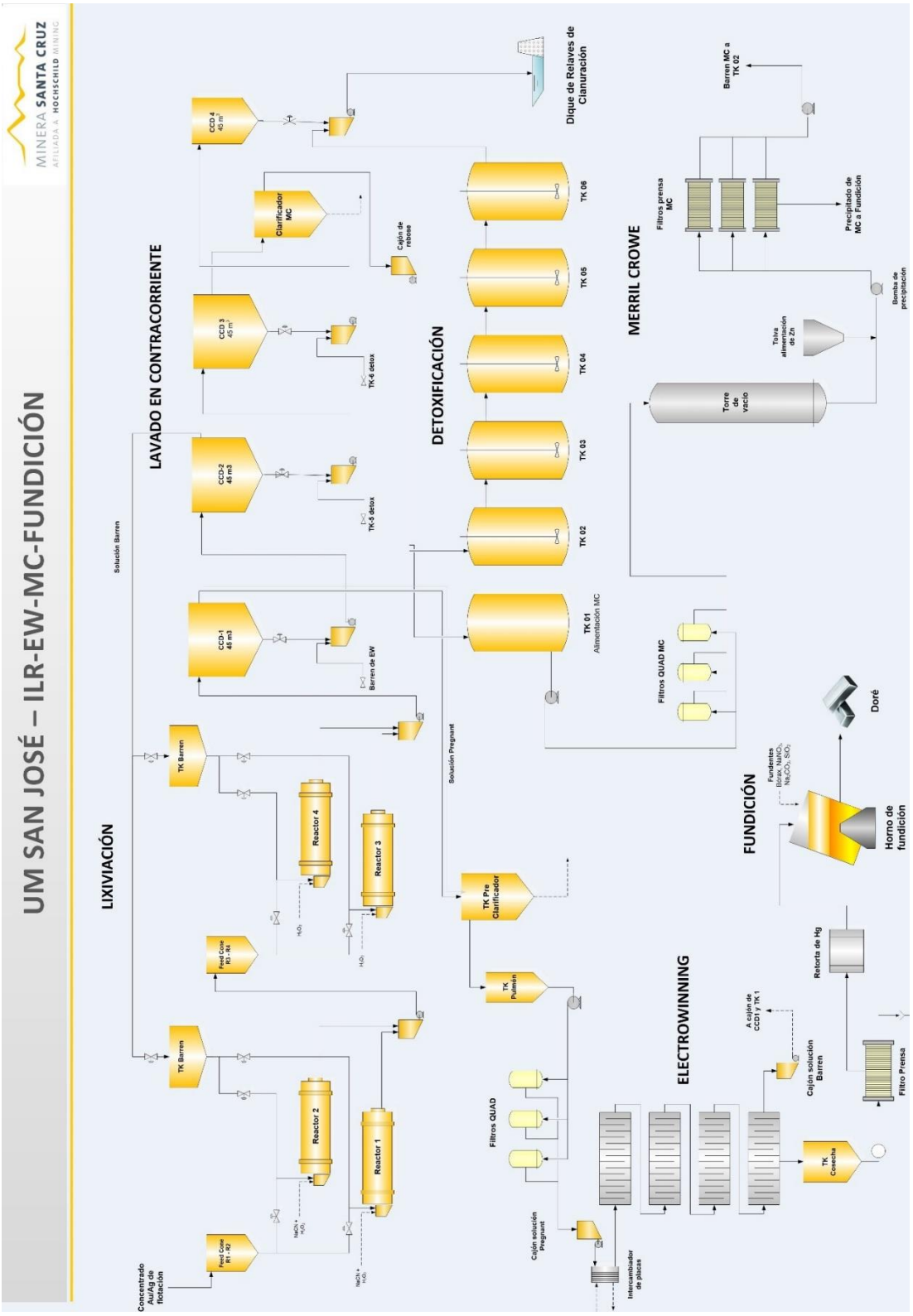

Figure 14-7 – ILR Leaching, CCD, EW-Foundry, Detox and MC Circuits – Source: Hochschild (2019)

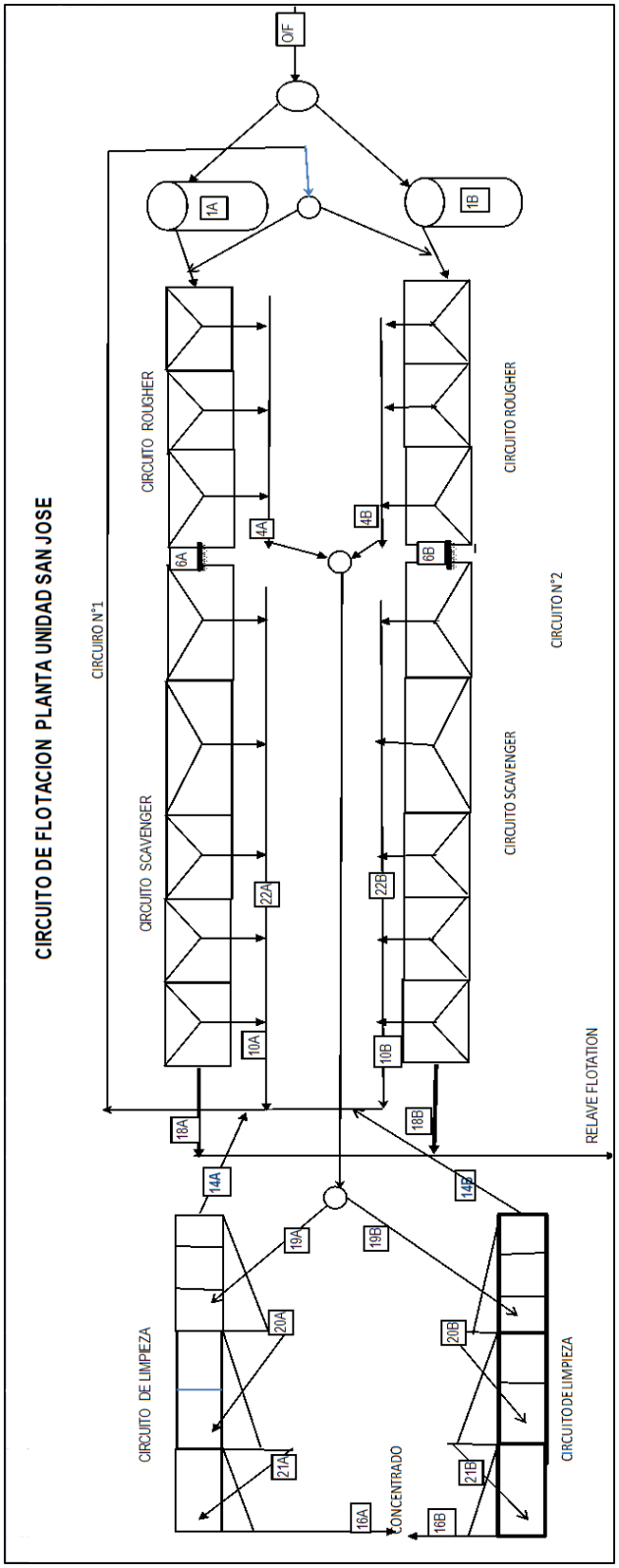

Figure 14-8 – Flotation Circuit – Source: Hochschild (2019)

While there are two parallel grinding and the flotation circuits in the San José process plant, grinding slurries and flotation concentrates are combined and roughly split 50:50 downstream. This includes the feed of cleaner concentrate to the ILR leaching and filtration circuits. Inaccurate splitting of slurries is of low importance in these areas in terms of operation efficiencies and metallurgical accountability in grinding and flotation. The allocation of the flotation concentrate between filtration and cyanide leaching is more important. The measurement of the concentrate flow to leaching is performed by flow and density measuring instruments installed on a conventional sand rubber lined ("SRL") pump discharge, which pumps the high specific gravity mineral froth on a horizontal line. Slurry measurement on a pump discharge that is non-surging and feeding a vertical line is a preferred methodology.

A 0.9 m diameter by 8.0 mm tall Eriez column flotation cell was installed for testing in early 2019 next to the conventional flotation cells as shown in Figure 17.9. The test plan was to substitute the column cell for a portion of the existing cleaner cells. Optionally, the column cell could be used as a re-cleaner cell. Initial results indicated a slight increase in concentrate grade, but similar recovery of Au and Ag compared to the conventional cells. Plastic debris in the feed slurry plugged the advanced technology air injector and had to be screened out for the tests. The column cell was not incorporated into the San José process.

Figure 14-9 – Eriez Column Flotation Cell Installation

The ILR circuit is composed of four Gekko model ILR 5000 reactors operating in a two by two configuration. Leaching is performed at a moderate solids' density (25-35%) and at a high concentration of cyanide

between 20,000 and 30,000 mg/L. Gold and silver extraction are indicated to be completed in the first CCD unit which suggests that the ILR circuit operates at near capacity. However, overall leaching extractions for gold and silver are normally high, exceeding 97%. The ILR leaching and CCD circuits have been installed in limited space which provides some challenges for routine operator and maintenance personnel access. Pipeline arrangements for barren, slurry and reagents are rudimentary but have appeared to have operated satisfactorily.

Recently, a new CCD configuration has been introduced with three, larger (4 m) units, replacing the one large and three smaller (2 m) units. Normally a reduction in number of CCD units would increase soluble loss of gold and silver to tailings, however, the low capacity of the small units, limited plant space and recycling and MC treatment of leach tailings pond water, the reduction in the number of CCD stages has proven satisfactory.

14.3 Summary of Mass and Water Balances

14.3.1 Tailings Water Management

Two types of tailings are produced – flotation tailings and cyanide leach tailings. Until 2015, the flotation tailings and leach tailings had been stored close to the plant in adjoining (#1 and #2) facilities which are separated by a lined berm. A high proportion of residual cyanide in the leach tailings is destroyed by hydrogen peroxide treatment before discharge.

Leached tailings are disposed in the no. 2 tailings facility, which is a fenced, the double-lined facility which had, at the end of 2019, 2.9 years of capacity at recent tailings production rates. A high proportion of residual cyanide in the leach tailings is destroyed by hydrogen peroxide treatment before discharge. The leached tailings facility has a permitted WAD cyanide level of 50 mg/L in the pond water. This limit is consistent with the International Cyanide Code for no discharge tailings facilities. The average WAD cyanide concentration was 46 mg/L in 2019, with the 50 mg/L limit exceeded in 3 separate months.

A new flotation tailings facility, no. 3, had been commissioned in early 2015, in a dry natural depression 1.6 km east of the plant. This unlined facility includes a small, low profile containment embankment. Attempts to recycle pond water have been frustrated by the lack of ponding (Figure 14-10: Regional persistently high wind velocities, a high evaporation rate and extended periods of low precipitation (both rain and snow) have created this challenge. In only 3 months out of 12, was any pond water available for recirculation to the plant in 2019.

Figure 14-10 – Dry Flotation Tailings Facility #3, January 2020

A partial solution has been found to site water shortage with the implementation of dry tailings disposal in combination with a mine backfill plant. A significant amount of new investment has been committed to recovering water from old plant tailings (no. 1 tailings), and a new plant has been constructed at the edge of no. 3 tailings to recover the maximum of tailings water. As indicated in the Figure 14-11 tailings water balance, much of the recovered water is used in a new mine backfill plant with the balance returned to the process plant.

The principal dewatering technology at the new San José facility is the use of centrifuges. Conventional dry tailings production typically involves the use of pressure filters, but very fine mineralization and the clay content remaining after the mine backfill cyclones ore made this option impractical. The tailings dewatering plant located on the north bank of no. 3 tailings is shown in Figure 14-12Figure 14-16, and the internal workings, the centrifuges, are shown in Figure 14-13.

Tailings Centrifuge Dewatering Plant ("Planta Recuperación de Aqua", PRA)

The centrifuge bowls were observed in January 2020 by P&E to be operating at 1,100 rpm, 65% of capacity. The "dewatered" cake is transferred by conveyor to transports outside the process plant. The cake was observed to be very wet and readily fluidized in the truck dump box (Figure 14-14Figure 15-8). As a

consequence, some of the cake was being spilled over the haulage way to the dumping location in the #3 tailings facility.

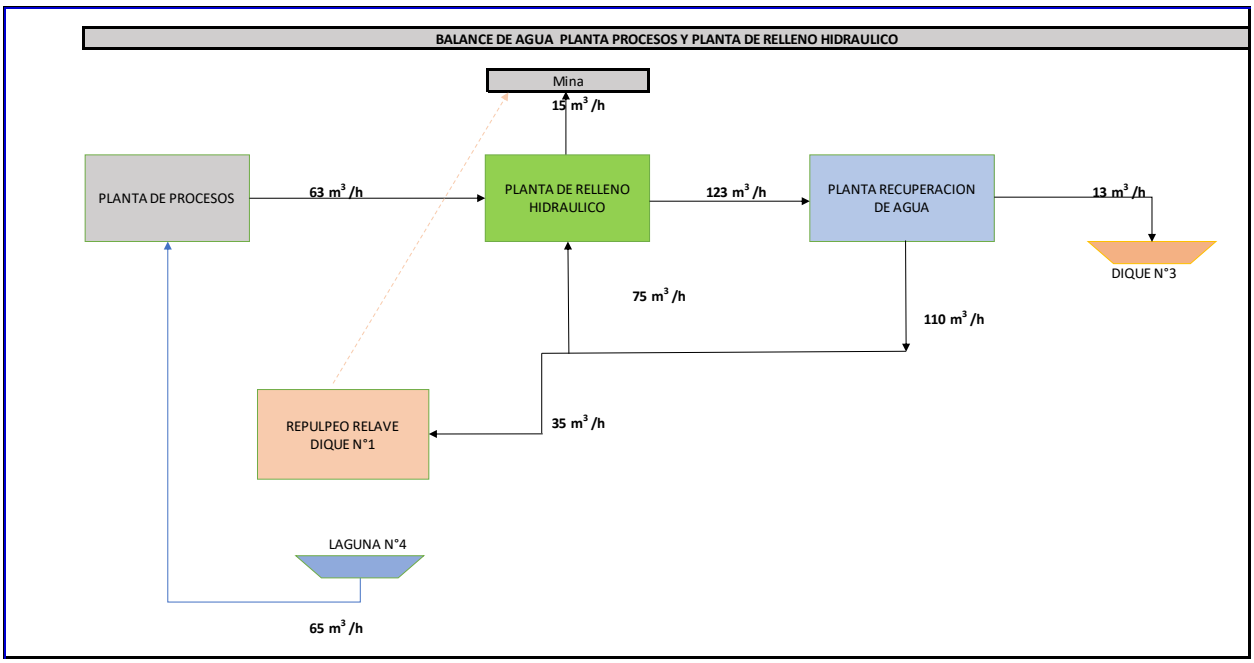

Figure 14-11 – 2019 Tailings Water Balance – Source: Hochschild (2019)

Figure 14-12 – Tailings Centrifuge Dewatering Plant – "Planta Recuperacion de Aqua, (PRA)"

Figure 14-13 – PRA Tailings Dewatering Centrifuges

Figure 14-14 – PRA Transfer of Dewatered Tailings to Haul Trucks

14.4 Products and Recoveries

The last eight-year average recoveries of gold and silver have been 87.85% and 87.97%, respectively. In 2019, the overall gold and silver recoveries were 88.55% and 88.26%, respectively; 56% of the flotation concentrate was bagged and shipped to a smelter, while 44% was processed by leaching and refining on site to doré.

A summary of San José's 2012 to 2019 process plant statistics is presented in Table 14-3.

Metallurgical performance has recently been very steady with most important parameters meeting or exceeding plans.

The small MC circuit at San José is dedicated to recovering gold and silver from leached tailings pond water and excess barren solution; the tailings pond water metal values represent, in part, soluble metal loss from the CCD circuit. During 2019, 46,145 m3 of tailings water and barren solution assaying 1.38 g/m3 Au and 66.2 g/m3 Ag were treated. This action extracted 1,259 oz of Au and 111,440 oz of Ag from this solution. Recorded recovery rates averaged 63% for Au and 93% for Ag, which is good performance for such dilute solutions.

Process plant consumptions and costs for 2016 to 2019 are summarized in Table 14-4. The usage rates and associated costs for grinding media and flotation chemicals are reasonable, but the usage rates and associated costs for cyanide and peroxide used for leaching and cyanide destruction are high, representing a large proportion of the cost for each tonne of concentrate treated.

A discrepancy between metallurgical ("teorico") and actual metal ("efectivo") recoveries has been significant at times at San José, however, this difference was reduced during 2019 and at year end metallurgical and actual recoveries were close to being identical. As shown in Table 14-3 and Figure 14-15, the 2019 recovery performance was good, slightly exceeding budget plans.

Table 14-3 – Process Plant Metallurgical Performance 2012-2019

Description	Units	Year								Actual vs.
		2012	2013	2014	2015	2016	2017	2018	2019	Plan 2019 (%)
Process Plant capacity	tpd	1,468	1,650+	1,650	1,650	1,650	1,650	1,650	1,650	
Process Plant Operating Days	d	347	356		327			355	348	
Tonnage Treated	t	509,850	536,937	571,017	532,488	536,024	532,676	556,185	544,165	99
Ore Grade Au	g/t	6	6	6	6	6	7	6	7	101
Ore Grade Ag	g/t	417	424	419	448	444	436	397	443	98
Flotation recoveries Au	%	90	89	89	90	89	89	89	89	102
Flotation recoveries Ag	%	90	89	88	89	88	89	90	86	102
Flotation Concentrate	dry t	34,101	31,585	38,203	33,741	34,415	31,433	34,681	34,884	
Concentrate Grade Au	g/t	92	101	78	104	87	103	91	98	107
Concentrate Grade Ag	g/t	6,450	6,559	5,414	6,687	6,255	6,687	5,914	6,417	103
Product, as filtered concentrate (%)	t	17,679	19,403 (61%)	22,582 (59%)	17,957	17,435	15,414	17,312	19,604	101
Tonnes leached to produce doré (% of total)	**t**	**16,422**	**12,182**	**15,621**	**15,784**	**16,980**	**15,948**	**17,369**	**15,280**	
	%	**48%**	**39%**	**41%**	**47%**	**49%**	**51%**	**50%**	**44%**	
Leaching recoveries Au	%		96.6	96.6	96.1	96.4	96.9	97.0	97.1	
Leaching recoveries Ag	%		96.6	96.4	95.1	96.0	96.3	96.5	96.1	
CCD/EW recoveries Au	%		97.8	98.9	98.2	97.7	98.4	98.1	98.1	
CCD/EW recoveries Ag	%		98.2	99.0	98.6	98.7	98.7	98.7	97.7	
Effective recovery Au	%	88.6	88.8	87.7	87.9	87.3	87.4	87.2	88.6	102
Effective recovery Ag	%	85.7	86.5	86.6	86.9	86.9	86.3	86.8	88.3	102
Theoretical recovery Au	%			87.0	87.5	87.4	86.9	87.3	88.5	102
Theoretical recovery Ag	%			87.1	87.4	88.0	86.6	87.3	88.3	102
Concentration ratio			17.0	14.9	15.8	15.9	16.9	16.0	16.0	
Concentrate moisture	%		10.0	10.8	10.6	10.0	10.2	10.2	10.8	
Total Production (koz AgEq)							**13,883**	**13,312**	**15,390**	**100**

Table 14-4 – Process Plant Recent Consumptions and Costs

Material	2016		2017		2018		2019	
	kg/t Ore	$/t Ore	kg/t Ore	$/t Ore Jan. – Sep.	kg/t Ore	$/t Ore	$/t leach conc	$/t Ore
Power				4.32		4.56		4.33
Crushing		3.83						
Grinding		7.38						
Grinding Balls	1.43		1.48		1.46	1.72		1.86
Flotation		4.17						
Xanthate	0.18		0.20		0.18	0.56		0.62
Leaching		9.32						
Sodium Cyanide (kg/t leach conc)	1.35		1.36 (45.4)		1.19 (38.0)	3.40		3.00
Caustic soda	0.05		0.05		no data			no data
35% Peroxide Leaching (kg/t leach conc)	0.97		1.06 -35.40		(308)		(20.3)	0.57
35% Peroxide Detoxification (kg/t leach conc)	8.66		9.74 -324.00				(104)	5.11
Total 35% Peroxide (kg/t leach conc)	9.63	7.79	10.80		9.63	7.45	(124)	5.68
Foundry		2.58						
Flotation Concentrate Management		1.91						
Tailings Management		1.19						
General Services		3.81						6.35
Plant Management		6.70						
Total (*without details)		**48.68**		**52.72***		**62.78***		**48.62***

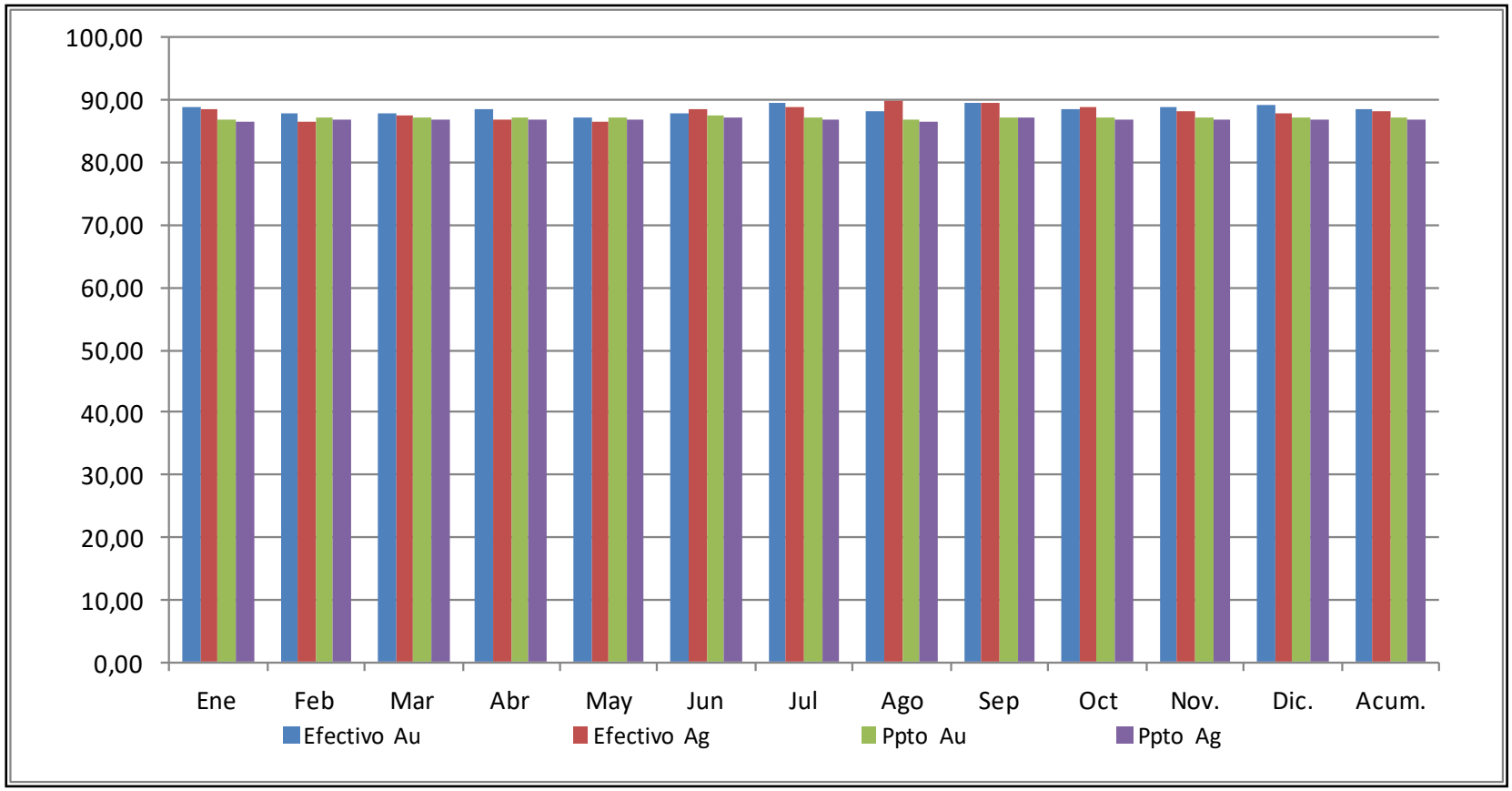

Figure 14-15 – 2019 Actual (Efectivo) and Budgeted (Ppto) % Process Plant Recoveries – Source: Hochschild (2020)

14.4.1 Sampling and Analyses

The ISO 17025-certified San José laboratory is responsible for plant sampling, sample analyses, and key process plant measurements. This includes head sample moisture and calibration of weightometers on ball mill feed conveyors. Sampling of flotation feed and flotation tailings protocols using secure, two-stage automatic samplers continue to be: primary cut every five minutes; secondary samples are accumulated for four- and 12-hour composites.

The San José chemical and metallurgical laboratories have over 22 managers and staff with two shifts daily. As of April 2019, the geology samples were being prepared and assayed on site and three persons were added per shift. The geology sample preparation and assaying had previously been performed at a commercial laboratory. Most of the analytical procedures had been dedicated to processing 18 plant samples per day, comprised of a few for metallurgical tests and several environmental samples.

The laboratory is outfitted with a complete set of modern atomic adsorption spectrometry ("AAS") and fire assay equipment including a relatively new, Microwave Plasma – Atomic Emission Spectroscopy ("MP-AES") machine that operates on inexpensive nitrogen gas. The extensive facilities are maintained in a clean and neat condition. Drying ovens are controlled at 106°C, satisfactory for sulphide samples. Geology samples are dried at 130°C ±20°C.

The laboratory is certified under ISO 17025 and a LIMS system is in place. Two internal Hochschild audits of the laboratory were performed in 2019. No major issues were reported in these audits, many issues are typically raised, but none were identified that are expected to affect analytical precision and accuracy. Two inter-laboratory exchange analyses were performed during 2019 with a certified Canadian laboratory and the San José results were classified as satisfactory, which means the results were completely within a very narrow range of comparison.

San José process plant sampling and measurement procedures, sample preparation, analytical procedures, QA/QC, and reporting can be considered to fully meet acceptable standards.

14.4.2 Routine Metallurgical Testing and Process Audits

The San José process plant has an active metallurgical test program with includes flotation testing of various mineralized zones and types, bottle-roll leach testing, and in-plant investigations. A pilot scale ILR system is available in the laboratory, but due to worker safety concerns, no testing has yet been completed using this equipment.

Over 300 geology samples were submitted for flotation testing in 2019. The samples were generally high grade, several assaying over 100 g/t Au and 1,000 g/t Ag. Laboratory flotation recoveries typically mirrored process plant recovery at 88% Au and 91% Ag.

Several plant sector audits were performed in the process plant in 2019: grinding, flotation, and leaching. The grinding and flotation audits revealed no significant deficiencies. The ILR and CCD circuit audits indicated that leaching is incomplete in the reactors themselves, with in excess of 1% of total recovery taking place in the CCD units. This is shown in the results on one audit represented in Figure 14-16. This tends to indicate that leaching conditions in the ILR's are inherently less than ideal, and poor agitation and settling out of solids inside the reactors may be factors.

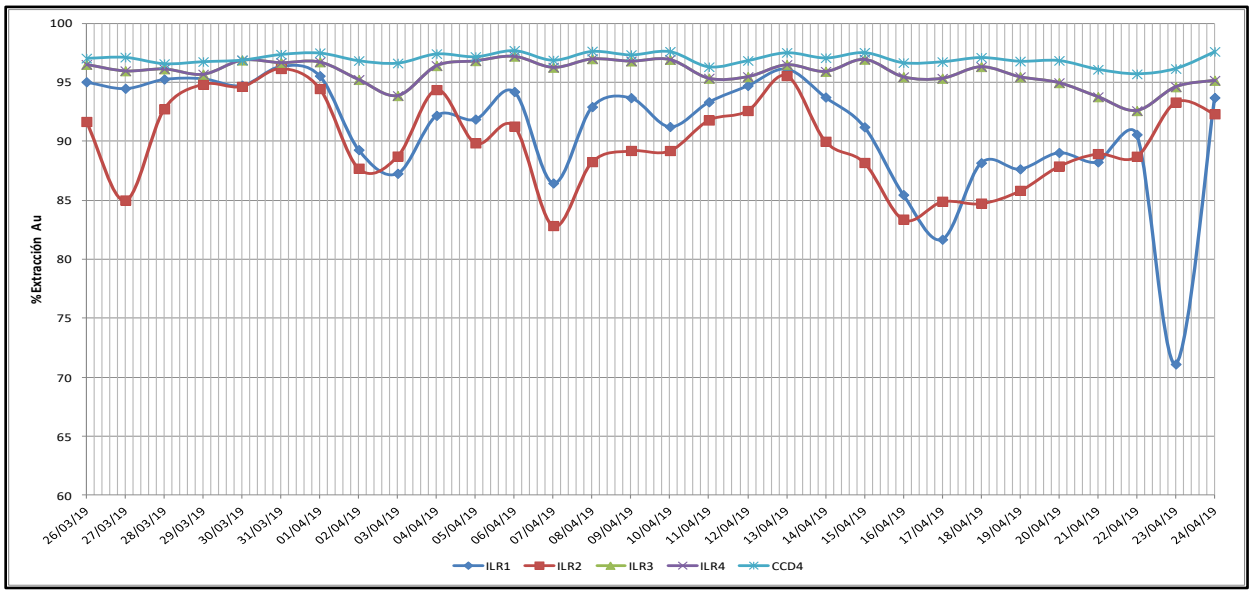

Figure 14-16 – Extraction in ILR's and CCD's – Note: No. 4 CCD = Light Blue – Source: Hochschild (2020)

14.5 Recommendations

Dust dispersion in the crushing facility is excessive in spite of the installation of extensive wet dust suppression and dry collection systems. Detailed investigations and re-engineering are justified.

Based on observations at the San José process plant, the splitting of grinding discharge slurry flow to flotation, rougher concentrate to cleaning, and the distribution of cleaner concentrate to leaching and filtration, can be described as imprecise, but inconsequential. The imprecision related to the splitting and totalizing of the flotation concentrate split to leaching and filtration is a major consideration, and this should be remedied. This will result in better accountability between effective and metallurgical performance.

Upgrading of the leaching facilities to process a higher percentage, even all, of the flotation concentrate had been considered in 2015. Important improvements would have included cleaning up the maze of poorly installed and identified pipes in the leaching circuit, replacement of solution clarifiers, and expanding leaching and CCD capacity. CCD capacity and performance has been improved, but the number of CCD stages is limited. Depending on Mineral Reserves, P&E recommends that this upgrading be considered including the addition of stirred leach tanks to supplement or replace the ILR units.

Depending on the assessment of Mineral Reserves, P&E suggests consideration should be given to reduce cyanide detox costs, including the installation of cyanide recovery/recycle technologies.

While 50 mg/L WAD cyanide is an internationally accepted toxicity threshold for secure tailings facilities, P&E recommends consideration of a lower operating action level threshold, e.g. 20-25 mg/L or lower WAD cyanide objective in the leached tailings pond water.

14.5.1 Operational Improvements

While all the processes and procedures in the San José process plant are well developed, and in consideration the LOM is limited, there are two aspects, of that could improve operations, namely:

- Ambient dust levels in the crushing component of the plant are elevated, resulting in risk to operating and maintenance workers. The high dust levels exist in spite of two installed approaches to dust suppression. One is a reasonably well engineered dust collection systems of manifolds, piping, baghouse and returning of dust by screw conveyor to the crushed ore in transit to the bins. The second system is a water spray system, where air-water nozzles (nebulizers) are installed at critical locations. It has been noted (by visitors) that the dry dust collection system operated well after being installed, but performance declined over time. It is likely that the decline in performance was caused by plugging up of piping and bag house fabric. The use of water sprays may have augmented the plugging. Cleaning of pipes and replacement of baghouse fabrics could restore dust collection.
- The flotation concentrate is normally spit between leaching and filtration/bagging. The method of splitting of the slurry appears to be rudimentary, which can result in metallurgical balance uncertainties. A more precise splitting method, such as the use of a rotating, segmented slurry splitter could be installed.

15 INFRASTRUCTURE

The San José Mine is located in Argentina, in the Santa Cruz province, 1,750 km south-southwest of Buenos Aires. The Property covers a total area of 40,498.69 ha and consists of 50 contiguous mining concessions. The San José Property is located approximately 20 km north of Goldcorp's Cerro Negro Project. A site layout of the San José Property is shown in Figure 15-1.

San José is currently a ramp access underground mining operation and has been in production since June 2007. The Deposit is primarily mined using the cut and fill method. The process plant at San José is designed to treat 1,650 tpd. All necessary infrastructure required including roads, electric power, fuel storage, communication services, underground mine infrastructure, process plant and tailings storage facilities, are in place to produce and process the Mine's projected ore production.

Figure 15-1 – San José Site Infrastructure Layout – Source: Hochschild (2019)

15.1 Access Roads

All necessary infrastructure required including roads, are in place to produce and process the Mine's projected ore production. The nearest town to the Property in Argentina is Perito Moreno, approximately 50 km to the west and 100 km by road, as shown in Figure 15-2. Las Heras and Pico Truncado are other small towns (populations ranging from approximately 3,600 to 15,000) that provide road access to the site.

Figure 15-2 – San José Mine Site (Minera Santa Cruz) in Relation to Perito Moreno Town – Source: Google Maps

15.2 Power Supply

All necessary infrastructure required including electric power, are in place to produce and process the Mine's projected ore production. The immediate area surrounding the Property is isolated, and initially electrical power was provided at the mine and plant site by diesel generators. It was determined that a more cost effective and longer-term option would be to connect the site to the national grid, which required a power line spur of 130 km of 132 kV electric line. The transmission line was completed in March 20, 2009 at a cost of US$21 M. The diesel generators, which are fully capable of providing sufficient power for the expanded 1,650 tpd operation, remain on site for emergency back-up power generation. Electric power is generally reliable with minimal interruption recorded. Figure 15-3 shows towers and response to regular high winds.

Figure 15-3 – Response of electrical distribution towers to high winds

15.3 Water Supply

All necessary infrastructure required including water supply, are in place to produce and process the Mine's projected ore production. Fresh water is obtained from wells, which have been situated in order to dewater the Frea Vein mining area. Water is stored in a surface impoundment. Water for the underground mine is sourced from the mine site settling ponds.

15.4 Leach Pads

Leach pads are not a requirement for production at San José mine.

15.5 ON/OFF and ROM Pads

A single 6m^3 front end loader is used to feed the primary jaw crusher from the ROM pad which has a capacity of approximately 30,000 tonnes.

15.6 Tailings Storage and Disposal

Two types of tailings are produced, flotation tailings and cyanide leach tailings. Until 2015, the flotation tailings and leach tailings had been stored close to the process plant in the number 1 tailings storage facility, which is separated from the number 2 leached tailings storage facility by a lined berm. A high proportion of residual cyanide in the leach tailings is destroyed by hydrogen peroxide treatment before discharge.

Leached tailings are disposed in the number 2 storage facility, which is a fenced and double-lined facility which had, at the end of 2019, 2.9 years of capacity at recent tailings production rates. The leached tailings storage facility has a permitted WAD cyanide level of 50 mg/L in the pond water. This limit is consistent with the International Cyanide Code for no discharge tailings facilities. The average WAD cyanide concentration was 46 mg/L in 2019, with the 50 mg/L limit exceeded in three separate months.

A new flotation tailings storage facility, number 3, had been commissioned in early 2015, in a dry natural depression 1.6 km east of the process plant. This unlined storage facility includes a small, low profile containment embankment. Attempts to recycle pond water have been frustrated by the lack of ponding (Figure 15-4). Regional persistently high wind velocities, a high evaporation rate and extended periods of low precipitation (both rain and snow) have created this challenge. Pond water was available for recirculation to the process plant in only three months in 2019.

Figure 15-4 – Dry Flotation Tailings Storage Facility Number 3, January 2020

15.7 Tailings Dam

A partial solution has been found to site water shortage with the implementation of dry tailings disposal in combination with a mine backfill plant. A significant amount of new investment has been committed to recovering water from old plant tailings (no. 1 tailings), and a new plant has been constructed at the edge of no. 3 tailings to recover the maximum of tailings water. As indicated in the Figure 15-5 tailings water balance, much of the recovered water is used in a new mine backfill plant with the balance returned to the process plant.

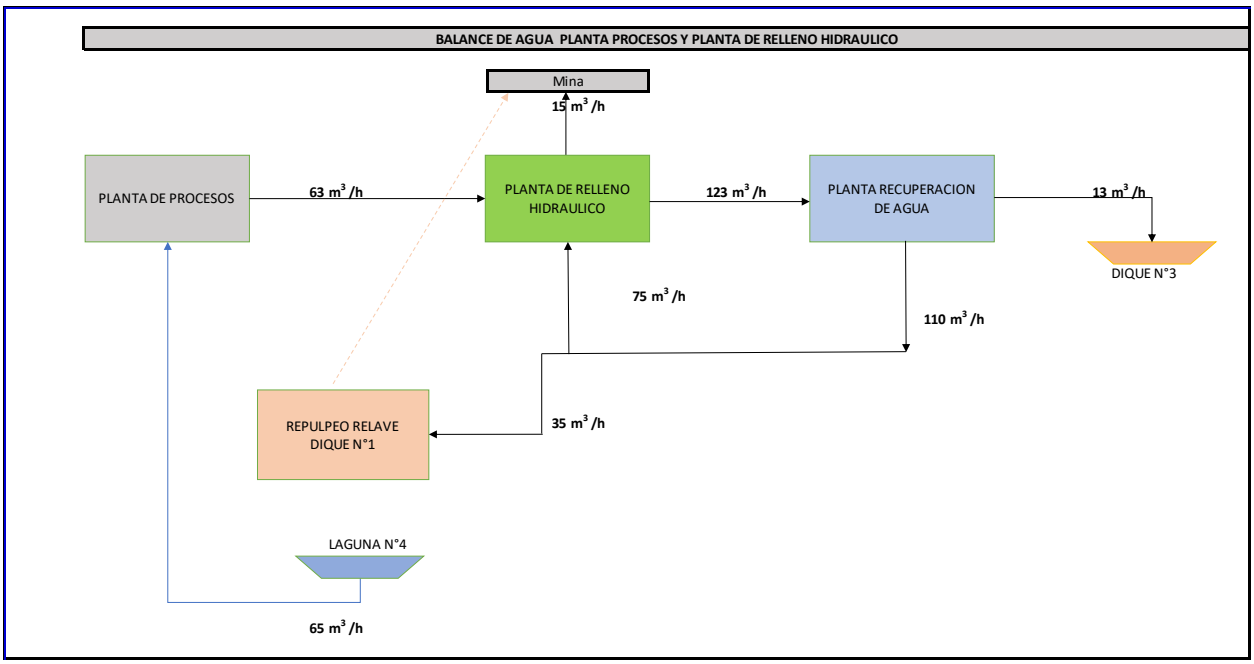

Figure 15-5 – 2019 Tailings Water Balance – Source: Hochschild (2019)

The principal dewatering technology at the new San José facility is the use of centrifuges. Conventional dry tailings production typically involves the use of pressure filters, but very fine mineralization and the clay content remaining after the mine backfill cyclones ore made this option impractical. The tailings dewatering plant located on the north bank of no. 3 tailings is shown in Figure 15-6, and the internal workings, the centrifuges, are shown in Figure 15-7.

Figure 15-6 – Tailings Centrifuge Dewatering Plant – "Planta Recuperacion de Aqua, (PRA)"

Figure 15-7 – PRA Tailings Dewatering Centrifuges

The centrifuge bowls were observed in January 2020 by P&E to be operating at 1,100 rpm, 65% of capacity. The "dewatered" cake is transferred by conveyor to transports outside the process plant. The cake was

observed to be very wet and readily fluidized in the truck dump box (Figure 15-8). As a consequence, some of the cake was being spilled over the haulage way to the dumping location in the #3 tailings facility.

Figure 15-8 – PRA Transfer of Dewatered Tailings to Haul Trucks

15.8 Construction Materials

All necessary infrastructure required is in place to produce and process the Mine's projected ore production. Minera Santa Cruz (MSC) quarries material from Estancia San José for road construction and other mining operations.

15.9 Communications

All necessary infrastructure required including communication services are in place to produce and process the Mine's projected ore production. MSC has installed a cellular-based telephone, data, and internet communication system. A satellite-based communication system remains as a back-up. All communication services to the mine are reliable.

15.10 Security

The San José Property consists of camp facilities that can accommodate up to 712 personnel, medical clinic, security building, maintenance shop, processing facilities, mine and process facility warehouse, surface tailings impoundment, support buildings and mine portals, change house, core shack, an administration building and offices. A double layer of security exists at the property gate. Dore production, storage and transport are overseen by a dedicated security team.

15.11 On-Site Infrastructure

A site layout of the San José Property is shown in Figure 15-9. San José is currently a ramp access underground mining operation and has been in production since June 2007. The Deposit is primarily mined using the cut and fill method. The process plant at San José is designed to treat 1,650 tpd. All necessary infrastructure required including roads, electric power, fuel storage, communication services, underground mine infrastructure, process plant and tailings storage facilities, are in place to produce and process the Mine's projected ore production.

Figure 15-9 – San José Site Infrastructure Layout – Source: Hochschild (2019)

16 MARKET STUDIES AND CONTRACTS

Minera Santa Cruz S.A., ("MSC") is the holding and operating company set up under the terms of an option and joint venture agreement between Minera Andes, S.A. ("MASA") (49%) and Hochschild Mining (Argentina) Corporation ("HMC") (51%). MASA is an indirect wholly owned subsidiary of McEwen Mining Inc. ("McEwen"). HMC is a wholly owned subsidiary of Hochschild Mining Plc ("Hochschild").

MSC undertakes concentrate and doré marketing and sales on behalf of the Joint Venture and does not have any forward sales or gold or silver streaming contracts in place that are applicable to the San José Mine. Future gold and silver revenue will be according to spot prices on open markets.

16.1 Product Specifications

About 50% of the flotation concentrate goes through cyanide leaching, electrowinning and smelting to recover silver and gold into doré on-site. The remainder of the concentrate is filtered, bagged, and shipped to a smelter/refinery for processing. About 42% of recovered gold reported to doré and 58% reported to the smelter in 2020, the overall gold and silver recoveries were 89.4% and 89.1%, respectively. 2020 production amounted to 9,697 koz AgEq.

MSC has a contract with Argor-Heraeus of Switzerland to smelt and refine its gold and silver doré bars on-site. The contract was established in 2015 and has had five commercial amendments up to 2020. Payable metal is set at 99.9% for both gold and silver. The contract also specifies treatment charges, refining charges and surcharges for deleterious elements that the doré bars may contain.

MSC's smelting contract is with LS Nikko Copper Inc. in the Republic of Korea, the most recent of which was entered into on October 8, 2020 with effectiveness period to December 2021. Gold payability ranges between 97% and 97.5% and silver payability ranges between 95.5% and 96%, based on concentrate grade. Treatment charge is $360 per dmt.

16.2 Product Pricing

The gold and silver pricing selected and used in this Technical Report Summary are $1,800/oz gold and $20/oz silver. These prices are the result of analysis of current marketing trends as required by S-K §229.1302(e)(4) which states, in part, "For both a pre-feasibility and feasibility study, a qualified person must use a price for each commodity that provides a reasonable basis for establishing that the project is economically viable. The qualified person must disclose the price used and explain, with particularity, his or her reasons for using the selected price, including the material assumptions underlying the selection." Current market trends reflect general business conditions in place during the 2019-2020 timeframe, including the actual financial impacts and potential future financial impacts from the COVID-19 pandemic.

The San José mine has a remaining mine life to 2023, two years from the date of this report. Consensus gold and silver price forecasting for the period are presented in Table 16-1 below based on in-depth spot price forecasting indexes, and is supportive of gold price of $1,800/oz and silver price of $20/oz chosen based on this pricing index and used in the cash flow analysis presented in Chapter 19 of this report. Although the pricing selected is not at the highest level of the forecasted pricing, it represents 95% of the 3-year average of the forecasted pricing for gold and 85% of the 3-year average for silver. The difference in the percentages for gold and silver are based on the price volatility portrayed over the 2021-2023 market demand as discussed below for the three main drivers for the metal pricing.

*Table 16-1 – Gold and Silver Price Forecast – Source: S&P Global Market Intelligence Metals & Mining *.*

	2021		2022		2023	
	Average Price	No. of estimates	Average Price	No. of estimates	Average Price	No. of estimates
Gold (USD$ /oz)	1,938.71	34	1,900.68	28.00	1,844.38	21
Silver (USD$ /oz)	24.35	26	23.33	22.00	23.09	14

*As of November 30, 2020

The three main economic drivers for gold and silver pricing are, 1) the US dollar strength, 2) real interest rates and 3) inflation forecasting. All of these factors are supportive of the gold price forecast above.

16.2.1 US Dollar Strength

U.S. Dollar Index (DXY) has been under pressure as debt levels rise because of pandemic spending. A series of successful vaccine trials has boosted confidence in a global recovery and driven investors into riskier assets classes such as equities, causing the U.S. dollar to pullback against most G10 currencies. The U.S. Federal Reserve has committed to maintaining its unprecedented accommodative monetary policy stance, on December 16, 2020, announcing that its emergency bond purchasing program will continue "until substantial further progress has been made" toward employment and inflation targets. This policy is expected to continue downward pressure on DXY through at least 2021 while the U.S. economy recovers, providing support of the U.S. dollar gold price.

16.2.2 Real Interest Rates

Policy rates around the world, including the U.S. Federal Reserve, are expected to stay relatively low for an extended period of time, similar to the period after the Global Financial Crisis. The continued global fiscal stimulus being injected into the economy due to COVID-19 will ultimately result in higher inflation,

effectively bringing real rates into negative territory. President-elect Biden has strongly hinted more stimulus to come after the December congressional approval of the $900 billion stimulus package. As mentioned above, the U.S. Federal Reserve also noted that the central bank is unlikely to tighten its ultra-loose monetary policies, suggesting that the Federal Reserve would not overreact to a sudden but temporary jump in inflation in 2021 as the economy rebounds from the COVID-19 pandemic. With the low policy rates and large fiscal stimulus packages globally, negative real rates are expected to last into the foreseeable next few years, which is supportive of a higher gold price.

16.2.3 Inflation Forecasting

With respect to inflation, the latest U.S. Consumer Price Index (CPI) data for December 2020, reported on January 19, 2021, showed consumer prices increased by 1.4% y/y. The report noted that higher gasoline prices were the biggest driver of the headline inflation numbers. The index excluding food and energy was also up 1.6% y/y in December. On the actual consumption front, the U.S. Federal Reserve sets its inflation target by tracking the core Personal Consumption Expenditures (PCE) price index. The additional global fiscal stimulus anticipated to be injected into the economy due to COVID-19 will drive a higher inflation risk. Market sentiment is getting more concerned about inflation late in 2021 and into 2022, and U.S. inflation is expected to gradually rise toward its 2% target by 2023. Gold price has historically responded well to inflationary pressures.

After widespread mine production disruptions globally over the first half of 2020, Asia, and Russia in Q1 2020, Africa and Americas in Q2 2020, production has largely returned to full capacity in the second half of 2020. Producers are expected to exercise discipline in terms of capital allocation to bring online new capacity, when combined with relatively lower head grades and fewer new discoveries, it is expected that gold supply will remain stable and trend toward long term decline.

In conclusion, the continued uncertainty in global markets from factors including COVID-19, pace of global recovery, government fiscal and monetary policy, and the ultimate cost of the pandemic should continue to support a premium in the gold price.

On the back of the gold price rally, silver price increased 48% over 2020. Rising investor demand for silver offset weaker industrial sector demand due to impact from the COVID-19 pandemic. Similar to gold supply, silver supply also experienced interruptions due to pandemic related challenges, which was supportive for prices. Despite new silver supply in the pipeline, a rebound in global economic activity is set to boost industrial demand.

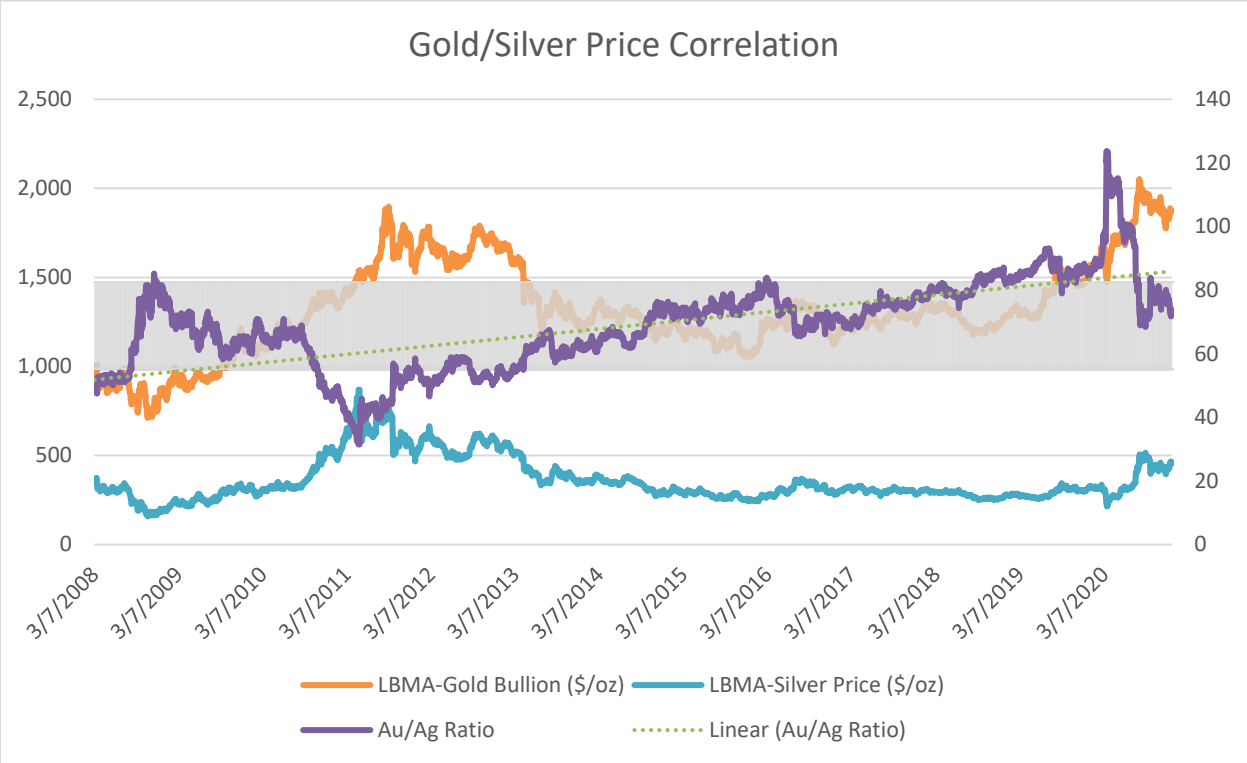

Figure 16-1 – Gold and Silver Price Correlation – Source: S&P Global Market Intelligence Metals & Mining, Mining Plus analysis

Further to the selection of the pricing used in this Technical Report Summary, as shown above in Figure 16-1, the gold price of $1,800/oz and silver price of $20/oz used in the cash flow analysis gives a gold/silver correlation ratio of 90, which is conservative over the mine life to 2023. As seen above, the gold to silver ratio has tended to be between 60 and 80, with a slight trending up in recent years.

16.3 Risks and Uncertainties

Certain risk factors may affect the foregoing commodities prices and contract terms.

Faster than expected recovery from COVID-19 may cause central banks to tighten fiscal and monetary policies sooner, removing inflationary pressures and move real interest rates higher, exerting pressure on the gold price.

Although the treatment contract with Argor-Heraeus has been extended five times with no substantial change to the commercial terms, it cannot be guaranteed that such one-year extensions will continue through the mine life of San Jose Mine. Similarly, for the smelting contract with LS Nikko Copper Inc., the payability terms and treatment charges may change upon renewable of the contract post December 2021.

16.4 Opportunities

There are opportunities to reduce uncertainty around gold and silver prices and marketing contracts.

On the macroeconomic level, COVID-19 variant strains could slow down global economic recovery and necessitate further stimulus actions from central banks, which would move gold price higher as an inflationary hedge.

MASA could consider establishing a hedge book whereby the company could take advantage of currently high precious metals prices and enter fixed price contracts for a portion of its future production. However, forward contracts would not allow the Company to participate in the anticipated global monetary and fiscal reflation and resultant strong gold price environment.

There may be room for improvement on the treatment and refining contract terms with Argor-Heraeus and LS Nikko Copper Inc., especially if MASA can take advantage of scale advantage by combining production from its parent company's other global mines.

16.5 Contract Sales

MSC undertakes concentrate and doré marketing and sales on behalf of the Joint Venture and does not have any forward sales or gold or silver streaming contracts in place that are applicable to the San José Mine. Future gold and silver revenue will be according to spot prices on open markets. In addition, treatment, and refining charges as well as payable metal has been accounted for in the sales price per unit material for both concentrate and doré products.

MSC has a contract with Argor-Heraeus of Switzerland to smelt and refine its gold and silver doré bars on-site as discussed earlier. The contract was established in 2015 and has had five amendments up to 2020. Payable metal is set at 99.9% for both gold and silver. The contract also specifies treatment charges, refining charges and surcharges for deleterious elements that the doré bars may contain. A summary of these charges and surcharges are outlined in Table 16-2 below.

Table 16-2 – Treatment Terms with Argor-Heraeus SA.

Item		Unit	Rate	
Treatment charge – Doré		US$/oz	0.16	
Refining charge – Doré		US$/oz	0.50	
Elements	**Free Upper Limit (%)**	**Increments (%)**	**Maximum Level (%)**	**Increment Charge per MT (US$)**
Arsenic	0.01	0.01	1.00	30.00
Antimony	2.00	1.00	10.00	70.00
Bismuth	0.01	0.01	1.00	25.00
Cadmium	0.01	0.01	1.00	75.00
Mercury	0.01	0.01	0.05	350.00
Selenium	0.10	0.05	1.00	75.00
Tellurium	0.10	0.05	1.00	75.00
Tin	2.00	1.00	10.00	50.00
Nickel	0.10	1.00	10.00	50.00
Zinc	5.00	1.00	15.00	20.00
Lead	1.00	1.00	5.00	100.00
Copper	10.00	2.00	30.00	15.00
Sulphur	0.10	0.10	2.00	25.00

MSC has a smelting contract with LS Nikko Copper Inc. in the Republic of Korea. The most recent contract was entered into on October 8, 2020 and is effective from December 2020 to December 2021. A summary of the charges is outlined in Table 16-3. MASA does not undertake its own doré sales.

Table 16-3 – Treatment Terms with LS Nikko Copper Inc.

Item	Unit	Rate
Gold payability – grade ≤ 60g/t	%	97.00
Gold payability – 60g/t < grade ≤ 80g/t	%	97.25
Gold payability – 80g/t < grade	%	97.50
Gold Refining charge	US$/payable oz	6.00
Silver payability – grade ≤ 5,000g/t	%	95.50
Silver payability – 5,000g/t < grade ≤ 6,000g/t	%	95.75
Silver payability – 6,000g/t < grade	%	96.00
Silver Refining charge	US$/payable oz	0.60
Treatment charge	US$/dmt	360.00

16.6 Market Analysis

Physical gold supply mainly comes from mine production (including gold produced as a result of artisanal and small-scale mining) and recycling (gold sourced from fabricated products that is refined back into bullion, including from jewellery, laptops, mobile phones, circuit boards etc.). Producer hedging measures the impact in the physical market of mining companies' gold forward sales, loans, and options positions. Hedging accelerates the sale of gold, a transaction which releases gold (from existing stocks) to the market. Figure 16-2 below from the World Gold Council illustrates supply contribution from each of the sources. Over time, hedging activity does not generate a net increase in the supply of gold. De-hedging – the process of closing out hedged positions – has the opposite impact and will reduce the amount of gold available to the market in any given quarter.

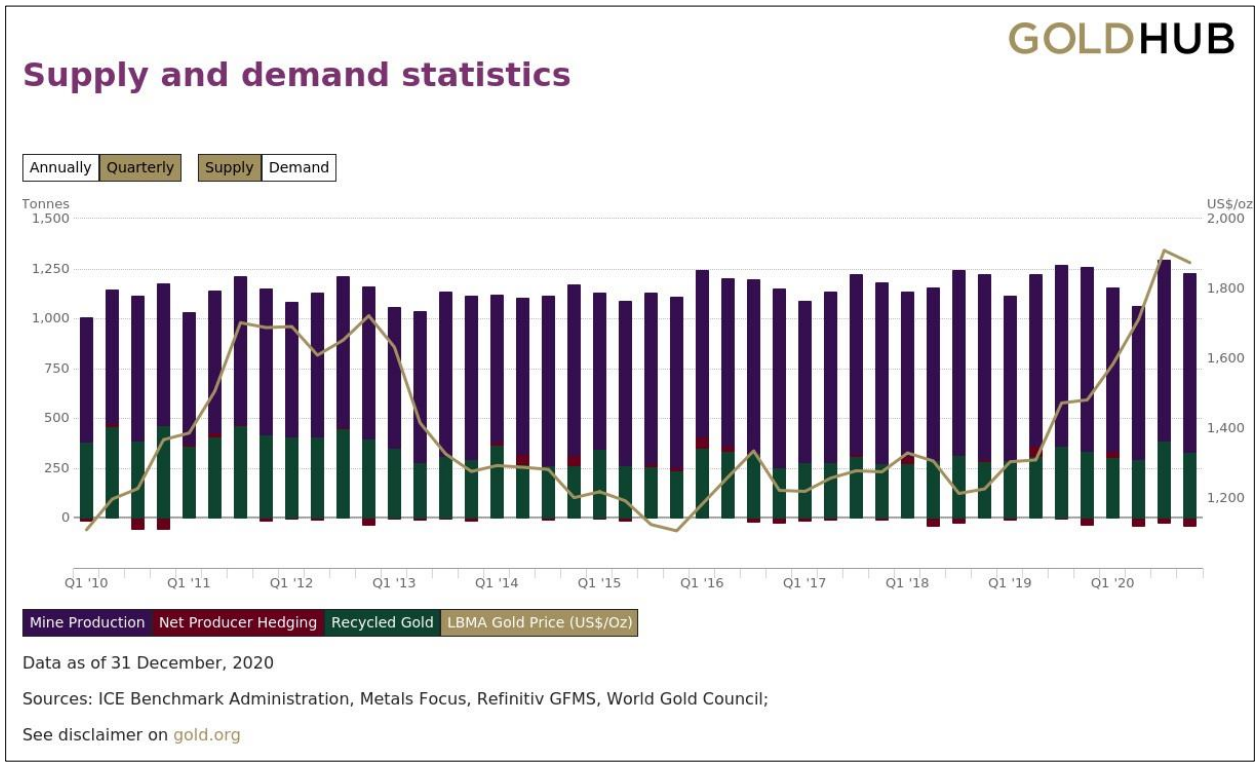

Figure 16-2 – Gold Supply Statistics from Q1 2010 to Q4 2020

Gold demand is mainly driven by investment demand, use in jewellery, technology and by central banks, whereby different segments of the gold market ebb and flow along the global economic cycle. . Gold demand from each of the end use is illustrated by Figure 16-3 below from the World Gold Council.

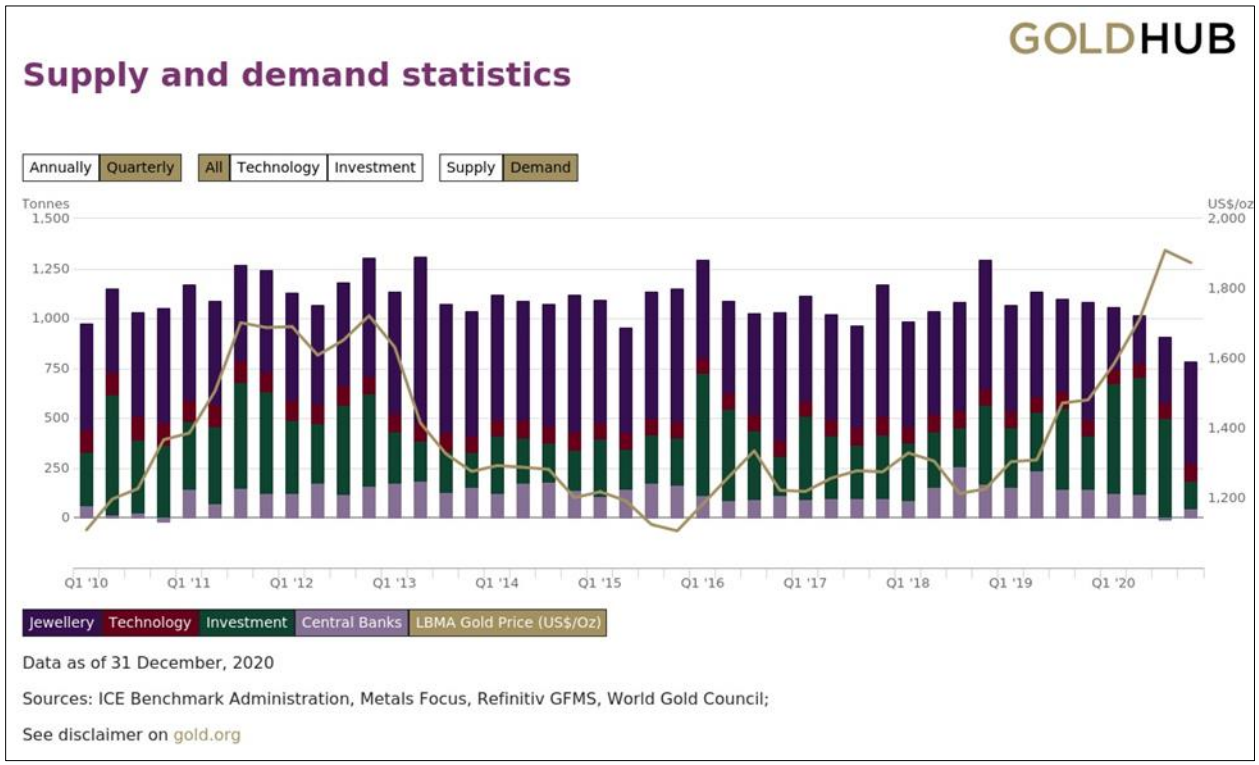

Figure 16-3 – Gold Demand Statistics from Q1 2010 to Q4 2020

While high gold prices will likely incentivise precious metals producers increase exploration, construction, and production activities to generate higher free cash flow in the rising gold price environment, precious metals refining facilities may prove to be a bottleneck in the supply chain.

Global gold refining capacity is around 3,000 tons compared to available supply is approximately 900 tons. Much of new primary gold supply is captive to local refiners located close to new mines in Russia or China. Secondary gold supply is coming from base metals smelters as a by-product and is not generally available to gold refiners.

Rising regulatory burdens, responsible mining principles and demand for traceability will also make it more difficult for refiners to turn to scrap or artisanal gold markets.

While the oversupply in capacity may present an opportunity to producers to obtain commercially favourable treatment and refining terms in the short term, continued cost burdens may force refiners to pass the higher costs to producers. A high-level summary of smelting and refining contracts MSC has in place have been presented in Section 16.5.

17 ENVIRONMENTAL STUDIES, PERMITTING, SOCIAL OR COMMUNITY IMPACTS

17.1 Environmental Baseline and Impact Studies

17.1.1 Environmental Baseline

A 2006 Environmental and Social Impact Assessment ("ESIA") for the San José Property provided the basis for permitting the San Jose facility. The ESIA was designed to meet the legal requirements in Argentina and also to comply with the procedures of evaluation that are widely accepted internationally regarding environment and social protection measures. The ESIA followed Argentinean national mining law, which the province of Santa Cruz has applied. The Santa Cruz Provincial Department of Mining is the lead permitting agency.

17.1.2 Impact Studies

San José reports no emerging permitting or significant environmental and social issues. All permits and licenses are in place to allow full operation of the Mine, the process plant, the tailings and waste rock storage facilities, the site water management system, as well as worker camp facilities and nearby warehousing and core storage assets. Environmental staff continuously monitor a wide range of aspects which result in quarterly performance reports and annual audits for water, air, sediments, meteorology, and waste management.

In 2017, Hochschild implemented what is termed the Environmental Corporate Objective ("ECO"), an initiative that is applicable at all Company sites and facilities. The ECO score is intended to encourage all employees to comply with a common environmental mission and assists in making everyone accountable for their actions. A corporate performance objective of 4 out of 6 was set for 2019; the actual Company-wide performance was 4.82 out of 6. The San José Mine and exploration units had an excellent score of 5.83 in 2019.

A conceptual site closure plan was prepared before operations began at San José and costs are updated periodically, particularly for the three tailings storage facilities.

In 2019, Ausenco was commissioned to examine the stability of tailings embankments at San José. The results indicated that the safety factors were adequate for all embankments, including for the one separating leached tailings from the original flotation tailings.

There are significant on-going programs to support local communities, in particular the interests of the citizens of nearby municipality Perito Moreno. The Company has been developing continuous support in education and training through the investment in mining skill development courses for communities and for professional careers.

17.2 Project Permitting

All necessary permits and licenses are in place (refer to Table 17-1) to allow full operation of the Mine, the process plant, the tailings and waste rock storage facilities, the site water management system, as well as worker camp facilities and nearby warehousing and core storage assets.

Table 17-1 – Permits for Property Operations at San José Mine, Argentina

PERMITS FOR PROPERTY OPERATIONS AT SAN JOSÉ MINE, ARGENTINA		
Permit	**Agency**	**Observation**
Mining Claim (Mina)	Santa Cruz Provincial Department of Mining ("DPM")	Mina status for 18 claims (covers all areas of production).
Mining Claim (Manifestation)	DPM	Remaining 78 Manifestations registered to MSC, awaiting final title. Four newly registered Manifestations converted from Cateo.
Exploration Rights Claim (Cateo)	DPM	Remaining 11 Exploration Rights registered MSC, awaiting final title.
Investment plan	DPM	Presented on February 15, 2005 for each of the claims
Mineral Producer Certificate	DPM	Registered since January 29, 2002 (403.305/01); renewed annually before March. Fee paid for 2019.
Environmental Impact Report	DPM	Approved by DPM on March 1, 2006. Extension requested for 2010-2012 bi-annual report. An extension to the corresponding 2014 bi-annual report was approved Feb. 2019.
Hazardous Waste Generator	Provincial Environmental Department ("SMA")	Registered with the Provincial Environmental Department (SMA) since May 2, 2006 (Res. N° 046-SMA/06). Request of incorporation of Hazardous Waste corresponding to categories Y1 and Y33 has been submitted to SMA. Certificate expires December 2019. Certification for hazard waste generator – bio-pathogens, expires December 2019.
Environmental Quality Certificate ("EQC")	DPM	EQC 2019 was issued.
Explosives Use	National Arms Registry	"User that receives explosive services" Register Number RE7082, issued on August 2011. Registration expired in August 2012 and was not renewed. "User that manipulates explosives" Renewed each year: Register Number 980007082, issued in May of 2019.
Explosives Storage	National Arms Registry	Issued on May 15, 2019 for 12 deposits. Date for renewal: May 2024
Water Use	Department of Water Resources (DRH)	Permit for water for industrial use expired in September 2013. The permit was extended several times since 2013.

Registry of Importers and Exporters	Import/Export National Administration (Dirección General de Aduana)	Registered since January 28, 2004. Renewed on June 10, 2008.
Radio Frequency use	National Committee of Communications ("CNC")	Permit issued for use of the assigned frequency and equipment.
Registry of Mining Investors	National Direction of Mining Investors (depending on National Mining Secretary)	Registered since April 18, 2002 (Registry Number 422).
Fiscal Stability Certificate	National Mining Secretary	Certificate issued May 15, 2006 (valid for 30 years).
Hydrocarbon storage permit	Secretary of Energy (National level)	Storage of hydrocarbons, tank certification from Secretary of Energy was renewed May 31, 2019 and expires May 31, 2020.
ARN (Nuclear Regulatory Authority)	National Atomic Energy Commission	Permission to use nuclear component in machinery/equipment issued in 2009 and expires in December 2021. Registered License Number 23928/1/1/12-21.

Note: DPM = Santa Cruz Provincial Department of Mining, SMA = Provincial Environmental Department, EQC = Environmental Quality Certificate, CNC = National Committee of Communications.

17.3 Other Environmental Concerns

Environmental staff continuously monitor a wide range of aspects which result in quarterly performance reports and annual audits for water, air, sediments, meteorology, and waste management. Recent site environmental performance, as outlined by the 5th sequential Environment Impact Assessment, was reviewed, and approved by the Secretaria de Estado de Minería of Santa Cruz in February 2019.

The San José Mine facility had been re-certified under the ISO 14001 environmental standard in June 2014 and this was valid until mid-2017. The absence of certification post June 2017 has not adversely affected ongoing comprehensive environmental management and social programs.

In 2017 Hochschild implemented what is termed the Environmental Corporate Objective ("ECO"), an initiative that is applicable at all Company sites and facilities. The ECO score is intended to encourage all employees to comply with a common environmental mission and assists in making everyone accountable for their actions. ECO measures environmental indicators such as environmental compliance, frequency of environmental incidents, performance in Peruvian official audits, and on-site environmental management. A corporate performance objective of 4 out of 6 was set for 2019; the actual Company-wide performance was 4.82 out of 6. The San José Mine and exploration units had an excellent score of 5.83 in 2019.

In 2019, Ausenco was commissioned to examine the stability of tailings embankments at San José. The results indicated that the safety factors were adequate for all embankments, including for the one separating leached tailings from the original flotation tailings.

The large waste rock storage piles on site are continuously being expanded. While some of the waste rock is potentially acid generating according to standard tests, the very high evaporation rate (1,500 mm/y) and low precipitation rate (125 mm/y) continue to support the assumption that significant metal leaching

or acid rock drainage will not occur. Smaller waste rock piles will be consolidated into one large pile for closure management.

17.4 Social and Community Impacts

There are significant on-going programs to support local communities, in particular the interests of the citizens of the nearby municipality, Perito Moreno. In addition to maximizing local employment, several services have been provided such as the establishment of a laundry and the provision of wood for heating and cooking. Previous support of the Alex Stewart laboratory in Perito Moreno assisted in providing significant local employment.

Hochschild has been developing continuous support in education and training through the investment in mining skill development courses for communities and for professional careers. In 2019, scholarship opportunities were provided to 50 students from Perito Moreno. Support has also been provided to local governments for their social activities. In addition, San José continues to support the Perito Moreno Museum including its showcasing of the cave paintings from the Cueva de los Manos. Social investment has been made for the support of area textile enterprises, and in generating economic support for the nearby communities, and supporting small entrepreneurs.

During the Christmas festive season special food support is provided to a large number of economically vulnerable families.

17.5 Mine Closure Plan

A conceptual site closure plan was prepared before operations began at San José. Cost estimates for this closure plan, updated four years ago, indicated a total cost of $28.7 M including taxes over three years, 2025-2027. These costs were recently updated by consultant Klohn Crippen Berger (“KCB”) to be $22.96 M. KCB also prepared a revised Closure Plan for the number 1 tailings storage facility. This would cost $3.08 M. These costs have been again revised to $19.9 M (without taxes) with $2.44 M remaining for number 1 tailings storage facility. Allocated closure costs are $0.48 M for number 2 tailings storage facility (leach tails) and $6.19 M for number 3 tailings storage facility, which is currently active.

18 CAPITAL AND OPERATING COSTS

18.1 Summary of Capital Cost Estimate

A summary of San José's capital development costs is presented in Table 18-1. San José's total estimated LOM capital costs are summarized in Table 18-2.

A conceptual site closure plan was prepared before operations began at San José. Estimates for this closure plan, updated in 2016, indicated a total cost of $28.7 M including taxes over three years, 2025-2027. These costs were recently revised by consultant Klohn Crippen Berger ("KCB") to be $22.96 M. KCB also prepared a revised Closure Plan for the number 1 tailings storage facility. This would cost $3.08 M. These costs have been again revised to $19.9 M (without taxes) with $2.44 M remaining for number 1 tailings storage facility. Allocated closure costs are $0.48 M for number 2 tailings storage facility (leach tails) and $6.19 M for number 3 tailings storage facility, which is currently active. Closure costs include site closure costs, severance costs and a credit for salvage value. A summary of San José's closure costs is presented in Table 18-3.

Table 18-1 – Capital Development Costs Summary in US$000s

Description	Cost	Year			LOM
	US$/m	2020	2021	2022	Total
Operational Infrastructure	2,600	4,531	1,300	-	5,831
Development (Preparation)	2,600	5,494	1,186	-	6,680
Raiseboring	1,198	274	-	-	274
Total Development Capital Costs		**10,299**	**2,487**		**12,785**

Table 18-2 – Capital Cost Summary in US$000s

Capital Cost Summary in US$000s														
Description	Year													LOM
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Capital Development	10,299	2,487	-	-	-	-	-	-	-	-	-	-	-	12,785
Sustaining Capital	12,647	13,328	-	-	-	-	-	-	-	-	-	-	-	25,974
Support and Infrastructure	3,533	3,724	-	-	-	-	-	-	-	-	-	-	-	7,257
Closure		20,000	-6,990	10,647	7,279	77	77	77	106	106	106	106	106	31,699
Total Capex	**26,479**	**39,538**	**-6,990**	**10,647**	**7,279**	**77**	**77**	**77**	**106**	**106**	**106**	**106**	**106**	**77,716**

Table 18-3 – Closure Cost Summary in US$000s

Description	Year													LOM
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Severance Costs	-	20,000	-	-	-	-	-	-	-	-	-	-	-	20,000
Mine Closure	-	-	3,410	10,647	7,279	77	77	77	106	106	106	106	106	22,099
Salvage	-	-	-10,399	-	-	-	-	-	-	-	-	-	-	-10,399
Total Capex	**-**	**20,000**	**-6,990**	**10,647**	**7,279**	**77**	**77**	**77**	**106**	**106**	**106**	**106**	**106**	**31,699**

18.1.1 Mine Capital Expenditure

Given that San José is an operating mine, most capital expenditures are of sustaining capital in nature. San José's estimated sustaining capital costs, on a yearly basis, are presented in Table 18-4.

Table 18-4 – Project Capital Costs in US$000s

Sustaining Capital Costs in US$000s				
Description	Year			LOM
	2021	2022	2023	Total
Total Sustaining Capital Costs	**12,647**	**13,328**	**-**	**25,974**

18.1.2 Plant Capital Expenditure

There is at this time no plant capital expenditure given that the plant has now been in operation for many years. All capital expenditures for the plant are of sustaining capital in nature and included in the previous section.

18.1.3 Infrastructure Capital Expenditure

San José's estimated support and infrastructure capital costs, on a yearly basis, are presented in Table 18-5.

Table 18-5 – Support and Infrastructure Capital Cost Summary in US$000s

Description	Year			LOM
	2021	2022	2023	Total
Total Support and Infrastructure	**3,533**	**3,724**	**-**	**7,257**

18.1.4 Basis of Estimate

All capital cost estimates, information and data were supplied by Hochschild and reviewed by P&E. San José's capital cost items include mine development required to access Mineral Reserves, projects, sustaining capital, support and infrastructure, and mine closure. Data was provided by the registrant, HOC, and reviewed by P&E. No issues have emerged over 10 years of review.

18.2 Summary of Operating Cost Estimate

All operating cost estimates, information and data were supplied by Hochschild and reviewed by P&E. Summaries of the San José Mine forecasted 2021 and LOM operating costs are presented in Table 18-6, Table 18-7 and Table 18-8.

Table 18-6 – 2021 Forecasted Operating Cost Summary US$/t

Category	OPEX	% Total Cost	US$/t
Geology	Fixed	77	7.49
	Variable	23	2.24
Mine	Fixed	58	44.90
	Variable	42	32.51
Royalties	Fixed & Variable	100	15.72
Process Plant	Fixed	43	17.80
	Variable	57	23.59
General Services	Fixed	82	38.90
	Variable	18	8.54
Administration	Fixed	99	50.47
	Variable	1	0.51
Total Cost			**242.67**

Table 18-7 – Annual Forecasted Operating Cost Summary in US$000s

Category	2021	2022	2023	LOM Total
Geology	4,882	4,732	-	9,615
Mine	38,829	37,912	-	76,741
Royalties	7,887	9,092	-	16,980
Process Plant	20,419	20,701	-	41,121
General Services	23,648	22,966	-	46,614
Administration	25,152	24,187	-	49,339
Total OPEX	**120,818**	**119,591**	**-**	**240,409**

Table 18-8 – Forecasted LOM Operating Cost Summary US$/t Processed

Category	2021	2022	2023	LOM Average
Geology	9.90	9.10	-	9.49
Mine	78.71	72.92	-	75.74
Royalties	15.99	17.49	-	16.76
Process Plant	41.39	39.82	-	40.58
General Services	47.93	44.17	-	46.00
Administration	50.98	46.52	-	48.69
Total	**244.89**	**230.02**	**-**	**237.26**

18.3 2021 Mine Operating Budget Costs

18.3.1 Geology

Geology costs include management costs, underground work, and project distribution. 2021 geology OPEX cost is estimated to average US$9.73/t mined. Fixed and variable costs represent 77% (US$7.49/t mined) and 23% (US$2.24/t mined), respectively, of this total cost. Details of the geology OPEX are presented in **Error! Reference source not found.**.

Table 18-9 – Forecasted 2021 Geology Operating Cost

Item	US$/t Mined
Geological Management	9.08
Drilling	0.46
Underground Work	0.06
Project Distribution	0.13
Total Geology	**9.73**

18.3.2 Mine

Mine costs include mine operating costs, general mine expenses, mine services, materials, salaries, other expenses, and credits for projects. The stope and development costs include consumables and installed services (i.e. pipe, explosives, etc.). 2021 mine costs are estimated to average US$77.41/t mined. Fixed and variable costs represent 58% (US$44.90/t mined) and 42% (US$32.51/t mined), respectively, of this total cost. Details of the mine OPEX are presented in **Error! Reference source not found.**.

Table 18-10 – Forecasted 2021 Mine Operating Cost

Item	US$/t Mined
Mine Operation	23.91
General Mine Expenses	0.07
Mine Services	63.45
Backfill	
- Materials	3.05
- Salaries	4.04
- Other expenses	4.07
Distribution to Projects	-4.94
Distribution of Direct Labour	-17.90
Total Mine	**77.41**

18.4 Plant Operating Cost

Process plant costs include materials, salaries, and other expenses. 2021 plant costs are estimated to average US$41.39/t processed. Fixed and variable costs represent 43% (US$17.80/t processed) and 57% (US$23.59/t processed), respectively, of this total cost. Details of the process plant OPEX are presented in **Error! Reference source not found.**.

Table 18-11 – Forecasted 2021 Process Plant Operating Cost

Item	US$/t Processed
Materials	13.41
Salaries	10.57
Other expenses	17.42
Total Plant	**41.39**

18.5 G&A

General services costs include the cost of energy, equipment and workshops, support services, mine services, heavy equipment, and a credit for projects. 2021 general services costs are estimated to average US$47.44/t (62% mined tonnes and 38% processed tonnes). Fixed and variable costs represent 82% (US$38.90/t) and 18% (US$8.54/t), respectively, of this total cost. Details of the general services OPEX are presented in **Error! Reference source not found.**.

Mine site administration costs include remuneration costs, staff support services, management support, other services, and intercompany expenses. 2021 mine site administration costs are estimated to average US$50.98/t processed. Fixed and variable costs represent 99% (US$50.47/t processed) and 1% (US$0.51/t processed), respectively, of this total cost. Details of the mine administration OPEX are presented in **Error! R eference source not found.**.

Table 18-12 – Forecasted 2021 General Services Operating Cost

Item	US$/t Processed
Energy	10.17
Equipment and Workshops	23.66
Support Services	6.50
Mine Services	0.18
Heavy Equipment	13.62
Project Distribution	-6.69
Total General Services	**47.44**

Table 18-13 – 2021 Forecasted Mine Site Administration Operating Cost

Item	US$/t Processed
Remuneration	12.44
Staff Support Services	8.36
Management Support	7.37
Other Services	21.72
Intercompany	1.09
Total Mine Site Administration	**50.98**

19 ECONOMIC ANALYSIS

The data used to prepare the economic assessment were supplied by Hochschild to the registrant and reviewed by P&E. The economic analysis contained in this Technical Report is based on Proven and Probable Mineral Reserves, and stockpiled ore. The Mineral Reserves in this Technical Report meet the requirements as defined in S-K §229.1300 regulations. The following information represents 100% of the Property. McEwen Mining has a 49% attributable interest in the San José Mine.

19.1 Economic and Financial Inputs, Key Metrics, and Assumptions

The physicals used as inputs, as well as revenue and cost parameters have been tabulated in Table 19-1, Table 19-2, and Table 19-3.

Table 19-1 – Mine Physicals

Physicals	
Mine life:	1.96 years, January 2021 to December 2022; decommissioning & closure to year 2033.
Process plant production capacity:	1,650 tpd.
Total mine production:	1,002,300 t ore at 6.49 g/t Au and 399 g/t Ag.
Stockpile:	11,000 t ore at 8.00 g/t Au and 336 g/t Ag.
Total process plant production (includes Reserves & stockpile):	1,013,300 t ore at 6.51 g/t Au and 398 g/t Ag.
Concentrate:	Ratio of concentration: 16.4. 61.9 kt. Flotation Recovery: 90.0% Au, 89.7% Ag. Fines: 190.9 koz Au, 11,628 koz Ag, 28,045 koz AgEq. Sold: 32.6 kt. Leached: 29.3 kt.
Leached doré:	Concentrate to precipitate: 29.3 kt, 95.9 g/t Au and 5,843 g/t Ag. Precipitate production capacity: 47.8 tpd.
CCD recovery:	93.6% Au, 92.8% Ag. 84.7 koz Au, 5,113 koz Ag, 12,393 koz AgEq.
Total fines:	185.1 koz Au, 11,231 koz Ag, 27,150 koz AgEq.

Table 19-2 – Forecasted Mine Revenue

Revenue	
Average JP Morgan LOM metal prices:	US$1,892.45/oz Au, US$26.45/oz Ag.
Gross Revenue:	US$350.3 M Au, US$297.0 M Ag.
Doré commercial discounts:	Payable Au: 99.9%, US$0.16 M. Payable Ag: 99.9%, US$0.14 M. Au refining: US$0.50/oz Au, US$0.04 M. Treatment: US$0.16/oz doré, US$0.81 M. Total: US$1.1 M.
Concentrate commercial discounts:	Payable Au: 97.1%, US$5.5 M. Payable Ag: 96.4%, US$5.7 M. Au refining: US$8.20/oz Au, US$0.8 M. Ag refining: US$0.74/oz Ag, US$4.3 M. Treatment: US$259.41/t, US$8.4 M. Total: US$24.9 M.
Net revenue:	**US$621.3 M.**

Table 19-3 – Forecasted Mine Cost

Cost	
Average LOM operating costs:	US$237.26/t processed.
LOM operating costs:	US$240.4 M.
LOM selling expenses:	US$33.1 M.
LOM administration costs:	US$12.7 M.
LOM responsibility tax:	US$6.2 M.
LOM capital costs:	US$46.0 M.
Closure costs:	US$31.7 M.
Total OPEX and CAPEX Costs:	**US$370.2 M.**

19.2 Base Case and Products Considered in the Cash Flow Analysis

An after-tax financial model has been developed for the San José operation. There is a 3.0% royalty on operating cash flow. The model does not consider any financing costs.

A cash flow summary is presented in Table 19-4. All costs are in Q4 2020 US$(000s) with no allowance for inflation.

Using average JP Morgan consensus metal prices of US$1,892.45/oz Au and US$26.45/oz Ag, a Net Present Value ("NPV") analysis, at a 5% discount rate, was completed on the after-tax cash flow and is estimated at US$167.8 M. The undiscounted after-tax cash flow is estimated at US$178.8 M. For this cash flow analysis, IRR is non-applicable since there is no initial negative cash flow.

The Operating Cost is US$10.77/oz AgEq. The LOM capital cost, including closure cost, is estimated at US$2.86/oz AgEq. Average annual production during the operation is approximately 13.8 M oz AgEq per year from 2021 to 2022.

Table 19-4 – Cash Flow Summary in US$000s

Description	Units	Year													LOM
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Production	tonnes	493,350	519,923	-	-	-	-	-	-	-	-	-	-	-	**1,013,273**
Au	g/t	6.35	6.66	-	-	-	-	-	-	-	-	-	-	-	**6.51**
Ag	g/t	364	430	-	-	-	-	-	-	-	-	-	-	-	**398**
Ounces AgEq	(000s)	12,569	14,582	-	-	-	-	-	-	-	-	-	-	-	**27,150**
Net Revenue	$000s	290,401	330,920	-	-	-	-	-	-	-	-	-	-	-	**621,321**
Production Cost	$000s	-120,818	-119,591	-	-	-	-	-	-	-	-	-	-	-	**-240,409**
Selling	$000s	-15,551	-17,586	-	-	-	-	-	-	-	-	-	-	-	**-33,137**
Administration	$000s	-6,345	-6,345	-	-	-	-	-	-	-	-	-	-	-	**-12,691**
Responsibility Tax	$000s	-2,904	-3,309	-	-	-	-	-	-	-	-	-	-	-	**-6,213**
Capex	$000s	-26,479	-19,538	-	-	-	-	-	-	-	-	-	-	-	**-46,017**
Mine Closure	$000s	-	-20,000	6,990	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106	**-31,699**
Pre-Tax Cash Flow	$000s	118,304	144,550	6,990	-10,647	-7,279	-77	-77	-77	-106	-106	-106	-106	-106	**251,155**
Income Tax	$000s	-34,611	-35,123	-2,600	-	-	-	-	-	-	-	-	-	-	**-72,334**
After-Tax Cash Flow	**$000s**	**83,693**	**109,427**	**4,390**	**-10,647**	**-7,279**	**-77**	**-77**	**-77**	**-106**	**-106**	**-106**	**-106**	**-106**	**178,821**
NPV After-Tax @ 5%	**$000s**						**167,815**								

19.3 Taxes, Royalties and Other Fees

The tax payable is calculated based on the following items: operating profit, financial depreciation, tax depreciation, profit before taxes, tax loss carry forward, adjusted profit before taxes, corporate tax rate (30% in 2021 and 25% in 2022), and tax advances. In addition to these taxes payable, there is a social responsibility tax at a rate of 1% of net revenue. This tax is included as part of the operating cost.

19.4 Contracts

The registrant does not have any forward sales or streaming gold or silver contracts in place that are applicable to the San José Mine, and future gold and silver revenue will be according to spot prices on open markets.

Hochschild subsidiary Minera Santa Cruz S.A. has a contract with Argor-Heraeus of Switzerland to smelt and refine its gold and silver doré bars. The contract was established in 2015 and has had six amendments up to 2020. Payable metal is set at 99.9% for both gold and silver. The contract also specifies refining charges.

Hochschild subsidiary Minera Santa Cruz S.A. has also established contracts with various companies based in Bulgaria, Germany, Peru, and South Korea to smelt and refine its silver concentrate which also contains gold. The most recent contracts were established in 2017 to 2019.

19.5 Indicative Economics, Base Case

This section is no longer relevant as the San José mine has been in operation since 2007. As a result, the currently established economics scenario serves as the base case.

19.6 Sensitivity Analysis

Operation risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on after-tax NPV's at a 5% discount rate. The following items were examined:

- Gold metal price;
- Silver metal price;
- Gold head grade;
- Gold metallurgical recovery;

- Operating costs, and
- Capital costs.

After-tax sensitivity over the base case has been calculated for -20% to +20% variations to determine the most sensitive parameter. Sensitivity values are shown in Table 19-5. The sensitivity results are presented in Table 19-6 and Figure 19-1.

Table 19-5 – Sensitivity Values

Item	Units	80%	90%	Base Case	110%	120%
Au Metal Price	US$/oz	1,514	1,703	1,892	2,082	2,271
Ag Metal Price	US$/oz	21.16	23.80	26.45	29.09	31.73
Au Head Grade	g/t	5.21	5.86	6.51	7.16	7.81
Au Met Recovery	%	N/A	81.0	90.0	N/A	N/A
CAPEX	US$M	62.2	69.9	77.7	85.5	93.3
OPEX	US$M	234.2	263.4	292.4	321.5	350.5

Note that the sensitivity values of gold metallurgical recoveries at 80%, 110% and 120% are unreasonable and/or not applicable.

Table 19-6 – Sensitivities on After-Tax NPV's at a 5% Discount Rate

Item	Units	80%	90%	Base Case	110%	120%
Au Metal Price	US$M	125.3	146.6	167.8	189.1	210.3
Ag Metal Price	US$M	131.9	149.9	167.8	185.8	203.7
Au Head Grade	US$M	125.4	146.6	167.8	189.0	210.2
Au Met Recovery	US$M	125.4	146.6	167.8	189.0	210.2
CAPEX	US$M	180.5	174.2	167.8	161.5	155.1
OPEX	US$M	207.0	187.4	167.8	148.2	128.7

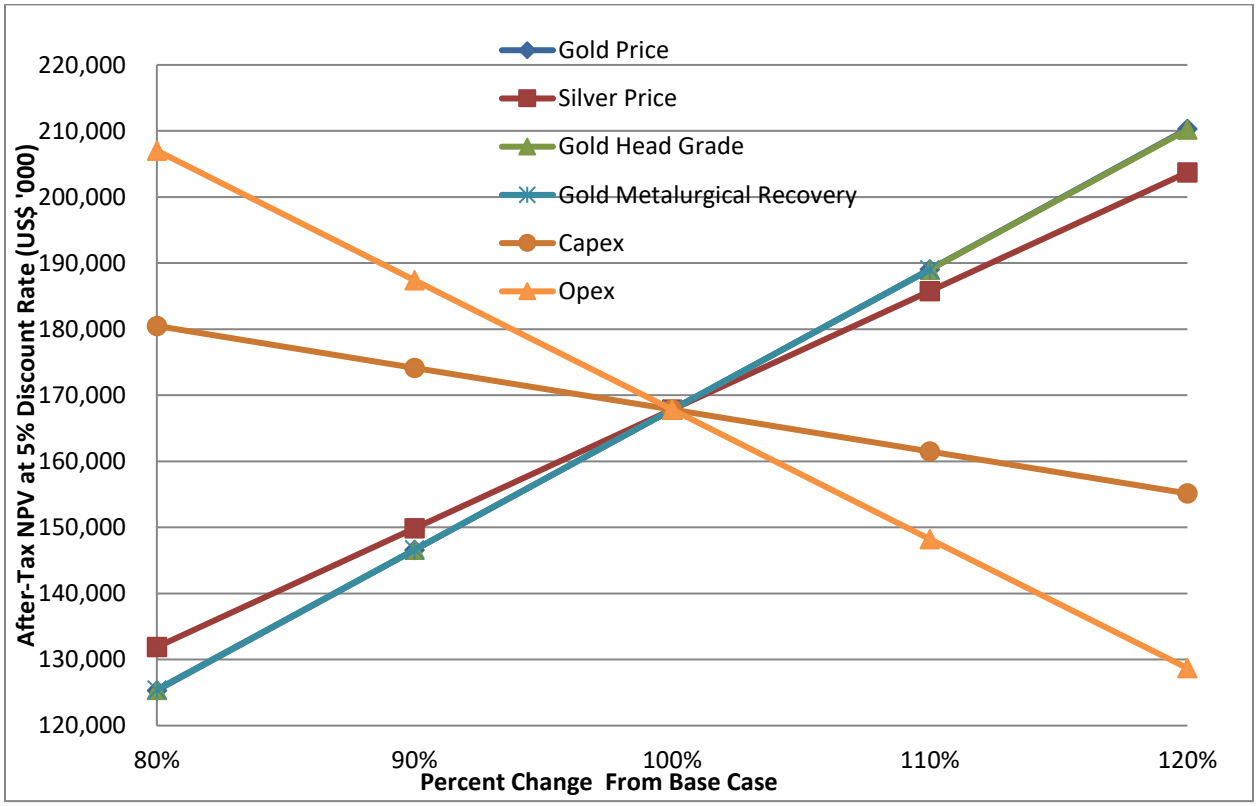

Figure 19-1 – NPV Sensitivity Spider Graph

The after-tax base case NPV is most sensitive to gold price then by gold metallurgical recovery and gold head grade followed by OPEX, silver price, then CAPEX.

19.7 Alternative Cases / Sensitivity Models

San Jose is an operating mine. Projected mine / process production, revenues and costs are based on the existing facilities and infrastructure, and past production statistics. There are no alternative Cases / Sensitivity Models. Sensitivities have been carried out on the after-tax base case NPV.

19.7.1 Alternative Case: Product Price Reduction

San Jose is an operating mine. Projected mine / process production, revenues and costs are based on the existing facilities and infrastructure, and past production statistics. Metal price sensitivities have been carried out on the after-tax base case NPV.

19.7.2 Alternative Case: Reduced Product Demand

San Jose is an operating mine. Projected mine / process production, revenues and costs are based on the existing facilities and infrastructure, and past production statistics. Reduced metal price sensitivities have been carried out on the after-tax base case NPV.

19.7.3 Alternative Case: Increased Product Extraction

San Jose is an operating mine. Projected mine / process production, revenues and costs are based on the existing facilities and infrastructure, and past production statistics. The San Jose operation is scheduled to cease operation in December 2022. There is no plan to increase ore extraction during this period.

19.7.4 Alternative Case: Delayed Start

San Jose is an operating mine.

19.7.5 Alternative Case: Conservative Case

San Jose is an operating mine. Projected mine / process production, revenues and costs are based on the existing facilities and infrastructure, and past production statistics. There are no alternative Cases / Sensitivity Models. Sensitivities have been carried out on the after-tax conservative base case NPV.

20 ADJACENT PROPERTIES

There are no properties adjacent to the San José Property.

21 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data, additional information, or explanation necessary to make the report understandable and not misleading.

22 INTERPRETATION AND CONCLUSIONS

22.1 Project Summary

The San José Mine has been in operation since 2007 and currently is scheduled to close in 2023. It is currently a 1,650 tpd operation that mines ore containing silver and gold that is processed on site. The processing of flotation concentrate tonnage is split between leaching with on-site doré metal production, and filtering, bagging, and the shipment of moist concentrate to a smelter/refinery for processing. Metal is sold to the open market.

22.2 Geology and Resources

This Individual Technical Report Summary qualified persons believe that the sample preparation and analysis are carried out in accordance with best exploration and industry practices. The QA/QC procedures are adequate, and the results demonstrate the database is appropriate for use in the Mineral Resource and Mineral Reserve Estimates.

Metal prices used for both Mineral Resources and Mineral Reserves are US$20/oz Ag and US$1,800/oz Au.

As of December 25, 2020, the Mineral Resource Estimate is comprised of Measured and Indicated Mineral Resources of 354 kt at 316 g/t Ag and 4.36 g/t Au and Inferred Mineral Resources of 1,861 kt at 345 g/t Ag and 5.58 g/t Au. The cut-off grade used for reporting is 285 g/t AgEq.

22.3 Mining and Reserves

This Individual Technical Report Summary qualified persons believe that the sample preparation and analysis are carried out in accordance with best exploration and industry practices. The QA/QC procedures are adequate, and the results demonstrate the database is appropriate for use in the Mineral Resource and Mineral Reserve Estimates.

Metal prices used for both Mineral Resources and Mineral Reserves are US$20/oz Ag and US$1,800/oz Au.

As of December 25, 2020 the Mineral Reserve Estimate is comprised of Proven Mineral Reserves of 826 kt at 408 g/t Ag and 6.75 g/t Au, and Probable Mineral Reserves of 187 kt at 354 g/t Ag and 5.46 g/t Au for a total Mineral Reserve of 1,013 kt at 398 g/t Ag and 6.51 g/t Au.

San José is a ramp access underground mining operation with three main portals. There is a total of 42 veins that will be mined at San José. The average mining width across all of the vein systems is approximately 2 m. The dip of the veins varies from 55° to 70°. Mechanized cut and fill mining is the main method at San José. The majority of production ore is derived from the "uphole retreat" mining technique where a panel of approximately 50 m in length is drilled with upholes and retreated along strike. Horizontal "breasting" is only used on the initial lift in each stope. A "resue" mining technique is employed in narrow high-grade areas. Longhole mining methods are also utilized. Waste rock backfill is used in the stopes. Hochschild undertakes both production and development mining.

22.4 Metallurgy and Processing

The process plant consists of conventional crushing, grinding, and production by flotation of a silver-gold-sulphide concentrate, and a laboratory. The processing of flotation concentrate is split between leaching with on-site doré metal production, and filtering, bagging, and the shipment of concentrate to a smelter/refinery for processing. In 2019, the overall gold and silver recoveries were 88.55% and 88.26%, respectively. 2019 production amounted to 15,390 koz AgEq. Flotation tailings are pumped to the tailings dewatering plant on the edge of the number 3 tailings storage facility 1.6 km from the process plant. Leached tailings are disposed in the number 2 tailings storage facility, which is a fenced and double-lined facility.

22.5 Infrastructure

The Mine and mine infrastructure design, construction and operation was and is implemented at a relative high standard compared to industry best practices.

22.6 Market Studies

The registrant does not have any forward sales or streaming gold or silver contracts in place that are applicable to the San José Mine, and future gold and silver revenue will be according to spot prices on open markets.

22.7 Environmental and Social Issues

The overall San José mine facility was certified under the ISO 14001 environmental standard in May 2011.

All of the known mineralized zones, mineral resources and mineral reserves and active mine workings, existing tailings ponds, waste, etc., are within MSC's concessions.

San José reports no emerging permitting or significant environmental and social issues. All permits and licenses are in place to allow full operation of the Mine, the process plant, the tailings and waste rock storage facilities, the site water management system, as well as worker camp facilities and nearby warehousing and core storage assets. Environmental staff continuously monitor a wide range of aspects which result in quarterly performance reports and annual audits for water, air, sediments, meteorology, and waste management.

San José has comprehensive environmental management and social programs in place. Reports available to P&E indicate a high degree of compliance with environmental objectives and regulations. There are significant on-going programs to support local communities, in particular, the interests of the citizens of Perito Moreno.

22.8 Project Costs and Financial Evaluation

Capital costs over the 2021-2022 production period, with final closure in 2033, are forecasted at US$77.7 M and include severance costs, salvage value, and closure costs. LOM operating costs are estimated at US$237.26/t processed for a total of US$240.4 M. LOM net revenue is estimated at US$621.3 M.

Using average JP Morgan consensus metal prices of US$1,892.45/oz Au and US$26.45/oz Ag, a Net Present Value ("NPV") analysis at a 5% discount rate was completed on after-tax cash flow, and is estimated at US$167.8 M. The undiscounted after-tax cash flow is estimated at US$178.8 M. For this cash flow analysis, IRR is non-applicable since there is no initial negative cash flow. The after-tax base case NPV is most sensitive to gold price then by gold metallurgical recovery and gold head grade followed by OPEX, silver price, then CAPEX.

It should be noted that the Mine has a history of increasing Mineral Reserves over time, both from upgrading Inferred Mineral Resources to Indicated Mineral Resources, and from exploration success.

22.1 Risk and Opportunity Assessment

22.1.1 Risks

Country risk ratings have been provided by Standard and Poor using their Market intelligence (S&P MI) product. Market risk ratings are categorised as political, operational, security and terrorism – shown in Figure. The ratings for each of these respective categories are medium to low as shown Table 22-1.

Table 22-1 – Control Risk Ratings

Control Risks Ratings

COUNTRY/PROVINCE	POLITICAL	OPERATIONAL	SECURITY	TERRORISM
Argentina	Medium	Medium	Low	Low
Buenos Aires	Medium	Medium	Medium	Low
Rosario and Santa Fe (both Santa Fe province)	Medium	Medium	Medium	Low

S&P MI platform provides detailed information about how risk ratings were assessed. Please note the following:

Political

Control Risks expects the business environment to remain challenging for companies and investors in the two-year outlook, particularly against the backdrop of the COVID-19 pandemic, which has further exacerbated Argentina's dire economic situation. Argentina's recent history suggests that the country has a political "centre of gravity" closer to the centre-left, particularly when compared to most developing countries. Historical reasons have also pushed Argentines to favour state intervention more strongly than most of their neighbours in Latin America, a trend effectively reflected in the massive victory of the Fernandez-Fernandez ticket in the primaries. As such, economic nationalism is likely to remain a sizeable force in the political culture for the foreseeable future, both at the national and provincial levels.

Operational

Argentina is characterised by a heavy state, a legacy of decades of development under the policies of "import-substitution industrialisation'. This has translated into a more generous welfare state and a much larger state apparatus, and consequently the tax rates are very high. Bureaucracy is cumbersome and marked by significant red tape, fostering corruption practices. The judiciary is also inefficient and has historically suffered from political interference. Infrastructure has faced lowering investment over the

past decade, although overall infrastructure remains above regional standards. Argentina has strict labour regulations, impacting the costs of business operations. Labour unions are also influential, and do not shy away from carrying out strikes and demonstrations – particularly during yearly salary negotiations. The operational environment is likely to remain challenging throughout 2021 on the back of the lasting impacts of the COVID-19 pandemic on supply chains and personnel mobility. This is mostly due to the strict quarantines that were imposed by the government in mid-March 2020.

Security

Argentina remains one of the safest countries in Latin America. While the homicide rate remains significant by Western standards – Argentina's official murder rate for 2019 stood at 5.0 per 100,000 inhabitants – it is well below those in countries like Colombia, Brazil, and Mexico. The primary threat to businesses and personnel is opportunistic crimes, especially in main urban centres. International criminal organisations are known to have a footprint in the country, catering to the sizeable domestic market for drugs and using Argentina as a trans-shipment route. The significant deterioration of Argentina's social environment on the back of the economic recession – which started in 2018 and was aggravated by the COVID-19 pandemic – means that poverty rates have increased significantly, surpassing the 40% threshold in 2020 according to official statistics. This will likely sustain increased risks associated with common crime – mainly street and vehicle robbery. Structural problems in law enforcement agencies will continue to significantly limit the success of efforts by the government, which will remain compounded by increased levels of poverty and unemployment. Security risks are higher in the cities of Rosario and Santa Fe (both in Santa Fe province), as well as in the capital Buenos Aires. The latter is a particular hotspot for opportunistic crimes like petty theft, vehicle theft and burglaries. Deprived neighbourhoods in the Buenos Aires metropolitan area also suffer from gang-related violence. Meanwhile, Rosario and Santa Fe suffer from the growing presence of organised criminals engaged in drug trafficking, driving up levels of both common and violent crimes.

Terrorism

Domestic political extremist groups are small and largely ineffective. Local ultra-leftist and nationalist groups occasionally carry out small-scale bombings, particularly during labour disputes, to mark key anniversaries and to protest against US foreign policy. Some of these have targeted commercial property. Politically motivated bomb attacks are possible during election campaigns or other high-profile events, particularly in Buenos Aires. These would be most likely to target government and political party offices in the early hours of the morning, with the intention of causing symbolic damage rather than casualties. There have been no acts of international terrorism since the 1994 bombing by suspected Middle East-linked extremists of a Jewish community centre. Further incidents would be most likely to target Jewish interests in Buenos Aires, as the city has the largest Jewish community in the Americas outside the US. There is also a low risk of an attack against US or British diplomatic or high-profile business interests because of international involvement in the Middle East. Islam extremists reportedly have a presence in the tri-border area around Foz do Iguacu (Brazil), Puerto Iguazu (Argentina) and Ciudad del Este (Paraguay). Some of these individuals are allegedly linked to Middle East-based Islamist organisations.

However, all available evidence suggests they are involved in activities such as fundraising and propaganda; there are no reports of planned attacks in Argentina. However, while these groups maintain limited capabilities in the region, its activities are mainly focused on laundering money for its operations in other parts the world, which might involve doing business with legitimate companies. The terrorism risk is therefore unlikely to change in the foreseeable future; the government on 17 July 2019 passed Decree 489/2019, which creates a new centralised public registry for terrorism and terrorist financing. This means that Companies operating in Argentina will need to conduct further compliance reviews of their business partners to make sure they adhere to the country's new terrorist standards.

22.1.2 Opportunities

Ignoring the short LOM, the expansion of the leaching circuit to leach all of the concentrate is an opportunity. In addition to encouragement by Argentina and Santa Cruz to process the flotation concentrate further on site, the NSR returns from doré exceed that from selling flotation concentrate. San Jose has some of the needed equipment for expansion on site (Intense Leaching Reactors (ILR's)). Again, ignoring the short LOM, recovery and recycling of cyanide would be an economic benefit. Proven technology is available for this, and operating savings would be substantial. However, the workforce sensitivity concerning the containment of hydrogen cyanide may be a challenge.

23 RECOMMENDATIONS

23.1 Project Summary

The San José Mine has been in operation since 2007 and based on current reserves, is currently is scheduled to close in 2022, however, there is a history of converting resources to reserves as needed. It is currently a 1,650 tpd operation that mines ore containing silver and gold that is processed on site. The processing of flotation concentrate tonnage is split between leaching with on-site doré metal production, and filtering, bagging, and the shipment of moist concentrate to a smelter/refinery for processing. Metal is sold to the open market.

The Mine and mine infrastructure design, construction and operation was and is implemented at a relative high standard compared to industry best practices.

This Technical Report authors believe that the sample preparation and analysis are carried out in accordance with best exploration and industry practices. The QA/QC procedures are adequate, and the results demonstrate the database is appropriate for use in the Mineral Resource and Mineral Reserve Estimates.

Metal prices used for both Mineral Resources and Mineral Reserves are US$20/oz Ag and US$1,800/oz Au.

As of December 25, 2020, the Mineral Resource Estimate is comprised of Measured and Indicated Mineral Resources of 354 kt at 316 g/t Ag, 4.36 g/t Au and 691 g/t AgEq and Inferred Mineral Resources of 1,861 kt at 345 g/t Ag, 5.58 g/t Au and 825 g/t AgEq. The cut-off grade used for reporting is 285 g/t AgEq

As of December 25, 2020 the Mineral Reserve Estimate is comprised of Proven Mineral Reserves of 826 kt at 408 g/t Ag and 6.75 g/t Au, and Probable Mineral Reserves of 187 kt at 354 g/t Ag and 5.46 g/t Au for a total Mineral Reserve of 1,013 kt at 398 g/t Ag and 6.51 g/t Au..

San José is a ramp access underground mining operation with three main portals. There is a total of 42 veins that have been or will be mined at San José. The average mining width across all of the vein systems is approximately 2 m. The dip of the veins varies from 55° to 70°. Mechanized cut and fill mining is the main method at San José. The majority of production ore is derived from the “uphole retreat” mining technique where a panel of approximately 50 m in length is drilled with upholes and retreated along strike. Horizontal “breasting” is only used on the initial lift in each stope. A “resue” mining technique is employed in narrow high-grade areas. Longhole mining methods are also utilized. Waste rock backfill is used in the stopes. Hochschild undertakes both production and development mining.

The process plant consists of conventional crushing, grinding, and production by flotation of a silver-gold-sulphide concentrate, and a laboratory. The processing of flotation concentrate is split between leaching

with on-site doré metal production, and filtering, bagging, and the shipment of concentrate to a smelter/refinery for processing. In 2020, the overall gold and silver recoveries were 90.0% and 89.9%, respectively. 2020 production amounted to 15,390 koz AgEq. Flotation tailings are pumped to the tailings dewatering plant on the edge of the number 3 tailings storage facility 1.6 km from the process plant. Leached tailings are disposed in the number 2 tailings storage facility, which is a fenced and double-lined facility.

Forecasted capital costs over the 2021-2022 production period, with closure currently scheduled for 2033, are estimated at US$77.7 M and include severance costs, salvage value, and closure costs. LOM operating costs are estimated at US$237.26/t processed for a total of US$240.4 M. LOM net revenue is estimated at US$621.3 M.

Using average JP Morgan consensus forecasted metal prices of US$1,892.45/oz Au and US$26.45/oz Ag, a Net Present Value ("NPV") analysis at a 5% discount rate was completed on after-tax cash flow, and is estimated at US$167.8 M. The undiscounted after-tax cash flow is estimated at US$178.8 M. For this cash flow analysis, IRR is non-applicable since there is no initial negative cash flow. The after-tax base case NPV is most sensitive to gold price then by gold metallurgical recovery and gold head grade followed by OPEX, silver price, then CAPEX.

It should be noted that the San Jose Mine has a history of increasing Mineral Reserves over time, both from upgrading Inferred Mineral Resources to Indicated Mineral Resources, and from exploration success.

23.2 Geology and Resources

P&E's main recommendation is to drill and explore the Property to increase the Mineral Reserve. Specific recommendations regarding the Mineral Resource Estimate are:

- This Individual Technical Report Summary qualified persons noted a total of 403 zero-grade assays and recommend that data entries with a zero grade be re-examined.
- Re-examine how smaller residual composite samples are used during estimation.
- The use of a small number of samples combined with inconsistent composing intervals may produce a local estimation bias and its impact should be examined.
- The grade estimation criteria should be reviewed for a global Mineral Resource where there is more than a 5% change between the average estimated grade and the average Nearest Neighbour grade.
- P&E considers the classification scheme as implemented by Hochschild for San José to be suitable for Mineral Resource estimation but recommends that the use of a larger number of

samples for estimation be considered for Mineral Resource estimation, especially for poorly informed blocks.

- P&E recommends that a mine-to-process plant Mineral Resource reconciliation study be implemented.
- Mineral Reserve cut-off estimations should be calculated for each type of mining method. There should be separate operating cost estimations for each type of mining method at the Pallancata, Inmaculada and San José underground mining operations.

23.3 Mining and Reserves

Mineral Reserve cut-off estimations should be calculated for each type of mining method. There should be separate operating cost estimations for each type of mining method.

23.4 Metallurgy and Processing

- Subject to a substantial extension of the LOM, the doubling of leaching, CCD, clarification, EW, and cyanide destruction capacity could be considered. This would produce higher value Dore as opposed to the sale of 50% of product as flotation concentrate. San José has in storage adequate # of ILR leaching vessels.
- The agitation in the Gekko ILR reactors is minimal and there is evidence that the leaching continues in the first CCD tank. Stirred reactors such as the Acacia-type could supplement the current leaching system. An additional CCD stage added to the 3-stage CCD circuit could very slightly reduce soluble loss. It is important to note that due to the limited LOM, these changes would not be economical.

23.5 Infrastructure

San José is currently a ramp access underground mining operation and has been in production since June 2007. The Deposit is primarily mined using the cut and fill method. The process plant at San Jose is designed to process 1,650 tpd. All necessary infrastructure required including roads, electric power, fuel storage, communication services, underground mine infrastructure, process plant, mine backfill and tailings storage facilities, are in place to produce and process the Mine's projected ore production. There are, at this time, no recommendations with regards to infrastructure for San José mine.

23.6 Market Studies

MSC does not have any forward sales or streaming gold or silver contracts in place that are applicable to the San José Mine, and future gold and silver revenue will be according to spot prices on open markets.

Minera Santa Cruz S.A. has a contract with Argor-Heraeus of Switzerland to smelt and refine its gold and silver doré bars. The contract was established in 2015 and has had six amendments up to 2020. Payable metal is set at 99.9% for both gold and silver. The contract also specifies refining charges.

Minera Santa Cruz S.A. has also established contracts with various companies based in Bulgaria, Germany, Peru, and South Korea to smelt and refine its silver concentrate which also contains gold. The most recent contracts were established in 2017 to 2020.

P&E has reviewed the existing contracts and has found that there are no outstanding issues with the terms and conditions.

23.7 Environmental and Social Recommendations

San Jose conducts diligent monitoring of environment performance and aspects of the operations and reporting results to local and corporate management as well as to Provincial Authorities. San José also conducts extensive community consultations and support. Details are listed below.

San José staff recently reported no emerging permitting or significant environmental and social issues.

Environmental staff continuously monitor a wide range of aspects which result in quarterly performance reports and annual audits for water, air, sediments, meteorology, and waste management. Recent site environmental performance, as outlined by the 5th sequential Environment Impact Assessment, was reviewed and approved by the Secretaria de Estado de Minería of Santa Cruz in February, 2019. The EIA was updated in 2020.

The San José Mine facility had been re-certified under the ISO 14001 environmental standard in June 2014 and this was valid until mid 2017. The absence of certification post June 2017 has not adversely affected ongoing comprehensive environmental management and social programs.

In 2017 Hochschild implemented what is termed – the Environmental Corporate Objective (ECO) – an initiative that is applicable at all company sites and facilities. The ECO score is intended to encourage all employees to comply with a common environmental mission and assists in making everyone accountable for their actions. A corporate performance objective of 4 out of 6 was set for 2019; the actual company-wide performance was 5.37 out of 6. The San José Mine and exploration units had an excellent score in 2019 – 5.83. This indicates a very high level of environmental diligence.

A conceptual site closure plan was prepared before operations began at San José. Cost estimates for this closure plan, updated four years ago, indicated a total cost of $28.7M (million USD) including taxes over three years, 2025-2027. These costs were recently revised by consultant Klohn Crippen Berger (KCB) to be $22.96M. KCB also prepared a revised Closure Plan ($3.08M) for the #1 tailings facility, which will require additional modification to accommodate tailings excavation for mine backfill. These costs have been again revised to $19.9M (without taxes) with $2.44M remaining for #1 tailings; Allocated closure costs are $0.48M for #2 tailings (leach tails) and $6.19M for #3 tailings, both of which are currently active.

The large waste rock piles on site are continuously being expanded. While some of the waste rock is potentially acid generating according to standard tests, the very high evaporation rate (1,500 mm/y) and low precipitation rate (125 mm/y) continue to support the assumption, assuming no radical climate change, that significant metal leaching or acid rock drainage will not occur. Smaller waste rock piles will be consolidated into one large pile for closure management.

There are significant on-going programs to support local communities, in particular the interests of the citizens of Perito Moreno the nearest municipality. In addition to maximizing local employment, several services have been provided such as the establishment of a laundry and the provision of wood for heating and cooking. The previous years' support of the Alex Stewart laboratory in Perito Moreno assisted in providing significant local employment.

MSC has been developing continuous support in the Education and Training through the investment in mining skill development courses for communities as well as for professional careers. Support has also been provided to local governments for their social activities. In addition, MSC San José continues to support the Perito Moreno Museum including its showcasing of the cave paintings from the Cueva de los Manos. Social investment has been made for the support of area textile enterprises and in generating economic support in the nearby communities as well as supporting small entrepreneurs.

During the Christmas festive season special food support is provided to a large number of economically vulnerable families.

One environmental recommendation regarding the management of cyanide-leached tailings is as follows:

- While the cyanide destruction methodology is robust at San Jose (peroxide treatment), the permitted cyanide concentration in tailings discharge is high at 50 mg/L, a lower discharge target level can be considered. Cyanide recovery – e.g. AVR process has been considered and rejected for cost and safety considerations.

23.8 Project Costs and Financial Evaluation

Since all major capital expenses have occurred prior to 2021, only sustaining capital items remain for the remainder of the mine life and they are included in the operating costs.

Financial evaluation methodologies will continue the same as in recent years since there has been no demonstrated reason to modify them.

24 REFERENCES

24.1 List of References

AMEC (2007). NI 43-101 Technical Report on the San José Property, Santa Cruz Province, Argentina

Corbett, G.J. (2002). Epithermal Gold for Explorationists. Australian Institute of Geoscientists, AIG Online Journal, April 2002.

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Gekko (2008). Memorandum (partially provided by Hochschild), Design basis and Comparison to 2008 Operating Conditions.

Minera Santa Cruz S.A. Legal letter on tenure. Dated October 21, 2019.

Mineral Resource and Reserve Estimate audit data, Report mobile equipment lists, Report personnel lists, Report drawings, Report figures and cash flow models were provided by Hochschild in the form of Excel spreadsheets, text files, AutoCAD files, dxf format files and PDF's.

P&E Mining Consultants Inc. (2014). Technical Report on the San José Silver-Gold Mine, Santa Cruz, Argentina. Effective Date: December 31, 2013, Report Date: August 15, 2014.

P&E Mining Consultants Inc. (2020). Audit Report on the Mineral Resources and Mineral Reserves of Hochschild's Producing Mines in Perú and Argentina, as of December 31, 2019. Report dated: August 6, 2020.

Rigamonti, N. (2020). Legal opinion letter on mineral rights and properties that compose the San José Project (Mina San José) in the Province of Santa Cruz, Argentina. Dated August 21, 2020.

SRK (2009). NI 43-101 Technical Report, Minera Andes Inc. San José Silver Gold Project.

25 RELIANCE ON INFORMATION SUPPLIED BY REGISTRANT

25.1 Information Supplied by Registrant

Mining Plus and P&E have worked to confirm, and relied on the fact, that all the information and existing technical documents listed in the References section of this individual Technical Report Summary are accurate and complete in all material aspects. While Mining Plus and P&E have carefully reviewed all the available information presented to us and is confident it provides the investor with all relevant and accurate information. Mining Plus and P&E reserves the right to revise the Technical Report Summary and its' conclusions if any relevant or material information becomes known to Mining Plus or P&E subsequent to the effective date of this Technical Report.

25.2 Details of Reliance

Copies of the tenure documents, operating licenses, permits, and work contracts were not reviewed. P&E has relied upon tenure information supplied in a letter dated August 21, 2020 by Mr. Nestor Rigamonti, Legal Manager of Hochschild's subsidiary Minera Santa Cruz S.A., and has not undertaken an independent detailed legal verification of title and ownership of the San José Property ownership. P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties but has relied on, and believes it has a reasonable basis to rely upon Hochschild to have conducted the proper legal due diligence.

Select technical data, as noted in this Technical Report Summary, were provided by Hochschild or the registrant, and P&E has reviewed and relied on the integrity of such data.

A draft copy of this Technical Report Summary has been reviewed for factual errors by Hochschild and P&E has relied on Hochschild's knowledge of the Property in this regard. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the effective date of this Technical Report Summary.

APPENDIX A: GLOSSARY OF TERMS

TERMS AND ABBREVIATIONS	
Abbreviation	**Description**
/	per
~	approximately
%	percent
<	less than
>	greater than
$	dollars (United States)
$M	dollars, millions
$/g	dollars per gram (United States)
$/oz	dollars per ounce (United States)
$/t	dollars per tonne (United States)
°C	degrees Celsius
µm	micrometre (micron), one millionth of a metre
AAS	atomic absorption spectroscopy
Ag	silver
AgEq	silver equivalent
Alex Stewart	Alex Stewart (Assayers) Argentina S.A.
AMEC	AMEC Americas Limited
ARN	Nuclear Regulatory Authority
Au	gold
AVR	acid volatilization recovery
C&F	cut and fill
Cateo	Exploration License
CCD	counter current decantation
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CIM Standards	CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council as amended, prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council, May 10, 2014
cm	centimetre(s)
CN	cyanide
CNC	National Committee of Communications
Company	Hochschild Mining plc
conc	concentrate
COV	cut-off value
CRF	cemented rockfill
CRM	certified reference material (standards)
CSA	Canadian Securities Administrators

TERMS AND ABBREVIATIONS	
Abbreviation	**Description**
CSAMT	controlled source audio-frequency magnetotellurics
Cu	copper
d	day
DPM	Santa Cruz Provincial Department of Mining
DRH	Department of Water Resources
E	east
ECO	environmental corporate objective
g	gram
g/L	grams per litre
g/t	grams per tonne
g/t Ag	grams of silver per tonne
g/t Au	grams of gold per tonne
h	hour(s)
ha	hectare(s)
Hochschild	Hochschild Mining plc
HS	high sulphidation
HVC	Huevos Verdes Central
HVN	Huevos Verdes Norte (North)
HVR	Huevos Verdes Ramal
HVS	Huevos Verdes Sur (South)
ID	inverse distance
ILR	intensive leaching reactor
IMC	International Minerals Corporation
IP	induced polarization
ISO	International Organization for Standardization
JORC Code	Australasian Code for Reporting Mineral Resources and Ore Reserves (2004) published by the Joint Ore Reserves Committee (“JORC”)
JV	joint venture
k	thousand(s)
KCB	Klohn Crippen Berger
kg	kilogram(s)
kg/t	kilograms per tonne
km	kilometre(s)
km2	kilometres squared
kV	kilovolt(s)
kW	kilowatt(s)
L	litre(s)
level	mine working level referring to the nominal elevation (m RL), e.g. 4285 level (mine workings at 4285 m RL)

TERMS AND ABBREVIATIONS

Abbreviation	Description
LIMS	laboratory information management system
LOM	life of mine
LS	low sulphidation
m	metre
m3	cubic metre
M	million
Ma	millions of years
Manifestation	claim in process for mining claim status
max.	maximum
MC	Merrill Crowe
MCOV	marginal cut-off value
McEwen or MUX	McEwen Mining Inc.
mg/L	milligrams per litre
MIBC	methyl isobutyl carbinol
min.	minimum
Mina	mining claim (approved)
Mine	the Property Mine
Minera Andes	Minera Andes Inc.
mm	millimetre
Moz	millions of ounces
MP-AES	Microwave Plasma – Atomic Emission Spectroscopy
m RL	metres relative elevation
MSC	Minera Santa Cruz, S.A.
Mt	million tonnes
N	north
NaCN	sodium cyanide
NE	northeast
NI 43-101	National Instrument 43-101 (Canada)
NN	nearest neighbour (analysis)
NPV	net present value
NSR	net smelter return
NW	northwest
OCR	operationally constrained lost Mineral Resources
OK	ordinary kriging
OSC	Ontario Securities Commission
oz	ounces
P&E	P&E Mining Consultants Inc.
Pb	lead

Abbreviation	Description
P.Eng.	Professional Engineer
P.Geo.	Professional Geoscientist
PLS	pregnant leach solution
ppm	parts per million
Property	the San José Property
Q1, Q2, Q3, Q4	first quarter, second quarter, third quarter, fourth quarter of the year
QA	quality assurance
QC	quality control
RC	reverse circulation (drill hole)
ROM	run of mine
S	south
SAG	semi-autogenous grinding
SE	southeast
SEDAR	System for Electronic Document Analysis and Retrieval
SEGEMAR	Servicio Geológico Minero Argentino
SMA	Provincial Environmental Department
sondajes	chip channel samples
SRK	SRK Consulting
SRL	sand rubber lined
SW	southwest
T	ton (imperial measurement)
t	tonnes (metric measurement)
TCN	total cyanide
tpd	tonnes per day
US$	United States dollars
W	west
WAD	weak acid dissociable
Zn	zinc

APPENDIX B: CONCESSION LOCATIONS OF THE SAN JOSÉ PROPERTY

SAN JOSÉ PROPERTY CONCESSIONS				
Concession*	File Number	Area (ha)	Mina Approval Date	Annual Holding Cost (Argentine Pesos)
El PlumaE2	412.278/MA/99	1,000	9/08/2006	32,000
El Pluma3	412.279/MA/99	750	18/10/2006	25,600
El PlumaE3	412.280/MA/99	800	18/10/2006	25,600
El Pluma4	412.281/MA/99	1,000	18/10/2006	32,000
El PlumaE1	410.412/MA/99	1,000	9/08/2006	32,000
Tres Colores A	411.332/MA/99	1,000	9/08/2006	32,000
Saavedra 5	410.089/MA/99	800		25,600
Saavedra 7a	410.090/MA/99	1,000	26/07/2007	32,000
Saavedra 2a	410.091/MA/99	1,000	13/08/2007	32,000
Saavedra 8	410.092/MA/99	1,000	15/05/2008	32,000
Saavedra 1a	410.093/MA/99	1,000	29/07/2009	32,000
Saavedra 6b	410.094/MA/99	800		25,600
Saavedra 4	410.095/MA/99	800	29/08/2007	25,600
Saavedra 3	410.096/MA/99	800		25,600
El Pluma1	410.411/MA/99	750		25,600
Tres Colores B	411.331/MA/99	999		32,000
El Pluma2	412.277/MA/99	1,000	1/09/2008	32,000
Tres Colores D	414.640/MA/00	901	17/10/2007	28,800
Tres E	414.266/MA/00	1,000		32,000
Tres F	414.267/MA/00	1,000		32,000
Tres Colores G	414.639/MA/00	398	20/11/2007	12,800
Uno C	413.097/MA/00	820		28,800
Saavedra 10	413.395/MA/00	1,000		32,000
Saavedra 9	413.396/MA/00	1,000		32,000
Tres Colores F	414.641/MA/00	901		28,800
Tres Colores C	414.642/MA/00	901	8/10/2007	28,800
Tres Colores E	414.643/MA/00	901	1/10/2007	28,800
SaavNE1	400.625/MA/01	1,000		32,000
SaavNE2	400.626/MA/01	1,000		32,000
SaavNE3	400.627/MA/01	500		16,000
Uno F	400.764/MA/01	594		19,200
Uno D	400.765/MA/01	840		28,800
Uno E	400.766/MA/01	840		28,800
Uno G	401.507/MA/01	1,104		38,400

SAN JOSÉ PROPERTY CONCESSIONS				
Concession*	File Number	Area (ha)	Mina Approval Date	Annual Holding Cost (Argentine Pesos)
Uno H	401.508/MA/01	560		19,200
Uno I	401.509/MA/01	560		19,200
Saavedra 11	401.874/MA/01	1,000	11/12/2006	32,000
Saavedra 12	401.875/MA/01	1,000		32,000
Saavedra 13	401.876/MA/01	1,000	13/09/2007	32,000
Saavedra 14	401.877/MA/01	1,000		32,000
Uno A	413.095/MA/00	840		28,800
Uno B	413.096/MA/00	840		28,800
Tres A	411.333/MA/99	1,000		32,000
Tres B	411.334/MA/99	750		28,800
Tres C	414.264/MA/00	980		32,000
Tres D	414.265/MA/00	770		25,600
Total Mine Claims		**40,499**		**1,321,600**

* Concessions are granted for unlimited periods of time, subject to the following conditions:

a) the payment twice a year of a mining fee (or "canon") of 80 Argentine Pesos per unit, or pertenencia (either an exploration permit unit or a mining concession unit); and

b) the filing of a minimum investment plan and compliance with a one-off minimum investment in the concession equal to 500 times the relevant canon over a five-year period; and

c) existence of continuous work in order to avoid abandonment pursuant to Section 225 of the Argentine Mining Code.

APPENDIX C: PERMITS FOR PROPERTY OPERATIONS AT SAN JOSÉ MINE, ARGENTINA

PERMITS FOR PROPERTY OPERATIONS AT SAN JOSÉ MINE, ARGENTINA		
Permit	**Agency**	**Observation**
Mining Claim (Mina)	Santa Cruz Provincial Department of Mining ("DPM")	Mina status for 18 claims (covers all areas of production).
Mining Claim (Manifestation)	DPM	Remaining 78 Manifestations registered to MSC, awaiting final title. Four newly registered Manifestations converted from Cateo.
Exploration Rights Claim (Cateo)	DPM	Remaining 11 Exploration Rights registered MSC, awaiting final title.
Investment plan	DPM	Presented on February 15, 2005 for each of the claims
Mineral Producer Certificate	DPM	Registered since January 29, 2002 (403.305/01); renewed annually before March. Fee paid for 2019.
Environmental Impact Report	DPM	Approved by DPM on March 1, 2006. Extension requested for 2010-2012 bi-annual report. An extension to the corresponding 2014 bi-annual report was approved Feb. 2019.
Hazardous Waste Generator	Provincial Environmental Department ("SMA")	Registered with the Provincial Environmental Department (SMA) since May 2, 2006 (Res. N° 046-SMA/06). Request of incorporation of Hazardous Waste corresponding to categories Y1 and Y33 has been submitted to SMA. Certificate expires December 2019. Certification for hazard waste generator – bio-pathogens, expires December 2019.
Environmental Quality Certificate ("EQC")	DPM	EQC 2019 was issued.
Explosives Use	National Arms Registry	"User that receives explosive services" Register Number RE7082, issued on August 2011. Registration expired in August 2012 and was not renewed. "User that manipulates explosives" Renewed each year: Register Number 980007082, issued in May of 2019.
Explosives Storage	National Arms Registry	Issued on May 15, 2019 for 12 deposits. Date for renewal: May 2024
Water Use	Department of Water Resources (DRH)	Permit for water for industrial use expired in September 2013. The permit was extended several times since 2013.
Registry of Importers and Exporters	Import/Export National Administration (Dirección General de Aduana)	Registered since January 28, 2004. Renewed on June 10, 2008.
Radio Frequency use	National Committee of Communications ("CNC")	Permit issued for use of the assigned frequency and equipment.
Registry of Mining Investors	National Direction of Mining Investors (depending on National Mining Secretary)	Registered since April 18, 2002 (Registry Number 422).
Fiscal Stability Certificate	National Mining Secretary	Certificate issued May 15, 2006 (valid for 30 years).
Hydrocarbon storage permit	Secretary of Energy (National level)	Storage of hydrocarbons, tank certification from Secretary of Energy was renewed May 31, 2019 and expires May 31, 2020.
ARN (Nuclear Regulatory Authority)	National Atomic Energy Commission	Permission to use nuclear component in machinery/equipment issued in 2009 and expires in December 2021. Registered License Number 23928/1/1/12-21.

Note: DPM = Santa Cruz Provincial Department of Mining, SMA = Provincial Environmental Department, EQC = Environmental Quality Certificate, CNC = National Committee of Communications.